CONVISION TECHNOLOGY

Convision V100/V200 Series

Version 5.1
english

INTERNET VIDEO SOLUTIONS

Convision V100/V200 Series

User Manual

Version 5.1

November 2003

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General

Congratulations on purchasing a unit of the Convision V100/V200 Series.

The Convision V100/V200 Series is available in the following versions:

- Convision 100 LAN Convision 200 LAN
- Convision 100 LAN/ISDN Convision V200 LAN/ISDN

All the descriptions and instructions contained in this manual apply to both versions. Therefore, the name "Convision V100/V200" is used.

This manual intends to convey the knowledge required to connect and handle your Convision V100/V200 Series. General information on configuring the required software on your computer you will find in the document “Convision System Configuration. You do not need any special software to operate the Convision V100/V200 Series since all the components are generally included in the standard software package supplied with the computer.

Please read this manual before connecting your Convision V100/V200.

You can download the latest update of the Convision V100/V200 manual and the Convision V100/V200 firmware free of charge from the Convision Website (www.convision.de).

Operate the Convision V100/V200 exclusively with 12 V DC.

Step by Step Procedures

Meeting the System Requirements – refer to Chapter 3

Connecting the Components – refer to Chapter 5

Configuring the System – refer to document “Convision System Configuration“

Setting up Your Browser – refer to document “Convision System Configuration“

Configuring Your Convision V100/V200 – refer to Chapter 6 and 9

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1 General Information

1.1 Scope of Delivery

After unpacking, make sure that all the parts have been delivered.

Convision V100/V200
Power pack DC 12 V/4 A
Power cable
ISDN cable
Mounting bracket kit
CD-ROM with Convision IPSetup Tool
Manual
Adapter mini DIN8 to D-Sub9

The device type and the serial number are on an adhesive label underneath the Convision V100/V200. This information is also included on the HTML pages in the "Information" menu (refer to chapter 8.6). In the "Information" menu, you can also check the current software version of your Convision V100/V200.

1.2 Safety Instructions

The Convision V100/V200 is a high-quality electronic product. Please follow the safety instructions below to prevent damage:

Never place the Convision V100/V200 near a heating source e.g. furnace or heaters or expose it to direct sunlight.
Do not cover the Convision V100/V200.

Only clean your Convision V100/V200 using a moist cloth without abrasive cleaning agents.

Never open the Convision V100/V200 yourself. In the event of a malfunction or defect, please contact the Convision Technology GmbH support service or your dealer.
Opening the unit invalidates the warranty

2 Product Variations

With the Convision V100/V200 product range, it is possible to connect 1 or 2 cameras and then access them simply via LAN and ISDN using a standard Internet browser. The Convision V100/V200 IP video servers transmit very high quality and high resolution images which ensures that no detail is overlooked. These images can then be viewed, depending on requirements and transmission method, using a standard browser from any computer.

In the case of an alarm, the Convision V100/V200 stores up to 32 pre and post alarm images which can then be sent as an e-mail attachment. Afterwards, the frame buffer is available for use again immediately.

The Convision V100/V200 offers various compression methods (JPEG, MPEG) in order that the required image quality is always available for every application. For example, when monitoring areas where cash is handled, the image quality needs to be much higher than when viewing an entrance door. During live surveillance, it is possible to view 25 images per second (PAL norm) from the Convision V100/V200 using MPEG.

The video resolution is 352x288 pixels, which corresponds to full VHS quality. The Convision V200 can transmit full photo quality images in JPEG video mode with an outstanding resolution of 704x576 pixels. Only with this transmission quality from Convision Technology are high resolution cameras really used to their full advantage.

Convision V100 LAN

- 1 Camera input
- 1 12 Volt DC Output (Power Out)

Convision V100 LAN/ISDN

- as Convision V100 LAN, but including ISDN terminal adapter

Convision V200 LAN

- 2 Camera inputs
- no Power Out

Convision V200 LAN/ISDN

- as Convision V200 LAN, but including ISDN terminal adapter

3 System Requirements

3.1 Requirements for Operation in an ISDN Telephone Network

For configuring and operating the Convision V100/V200 via ISDN, you need an basic ISDN access.

The Convision V100/V200 is completely ready for connection via ISDN, which means the user need not perform any installation. The Convision V100/V200 has been equipped with an ISDN card and the required ISDN software has been installed. For configuring the connections that are to be established via the ISDN interface, please refer to document “Convision System Configuration“.

If you want to make further settings for the Convision V100/V200 (e.g. TCP/IP, camera settings etc.) via the ISDN interface, you need a computer with ISDN capabilities. For more information, please refer to Chapter 6.1.

3.2 Requirements for Operation in a Local Area Network (LAN)

For configuring and operating the Convision V100/V200 in a local area network (LAN), you need a computer with an Ethernet interface. The Convision V100/V200 is designed for a 10/100 Mbit/s autosensing twisted-pair (TP) connection.

For detailed information on cabling, please refer to Chapter 5.2.

3.3 Software Requirements

To be able to configure the Convision V100/V200, you need an Internet browser that supports Java such as Microsoft Internet Explorer 5.5 or Netscape Navigator 4.x. You do not need any special software to operate the Convision V100/V200 since all the components are generally included in the standard software package supplied with the computer.

On computers with an MS operating system, you can configure the system by using Convision IPSetup directly in the form of an .exe file. In the case of other operating systems, you have to install a "JVM" (Java Virtual Machine), if not yet installed.

4 Controls, Connectors and Indicators

4.1 Front View

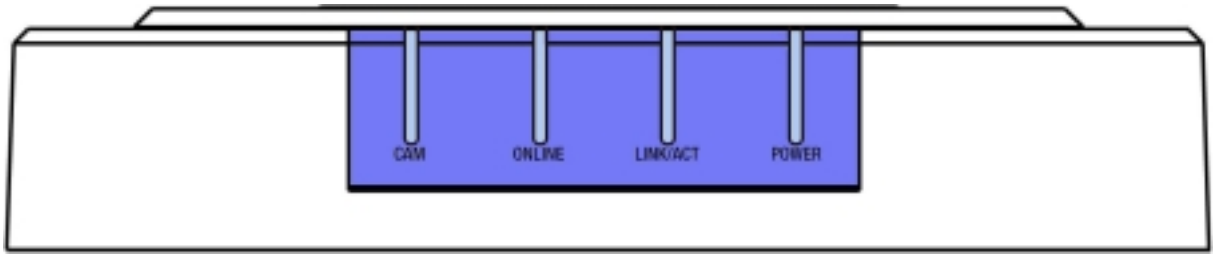


Figure 1: Front view of the Convision V100/V200

On the front of the Convision V100/V200 there are four indicator lamps which indicate the status. These include the following:

- Cam: This indicator lamp lights up when a camera is connected to the Convision V100/V200.
- Online: lights up when the Convision V100/V200 has completed an active ISDN connection, flashes when data is transferred.
- Link/Activity: lights up when a connection is present to the Ethernet, flashes when data is transferred.
- Power: lights up as soon as the Convision V100/V200 is connected to the line power and switched on.

4.2 Rear View

4.2.1 Convision V100

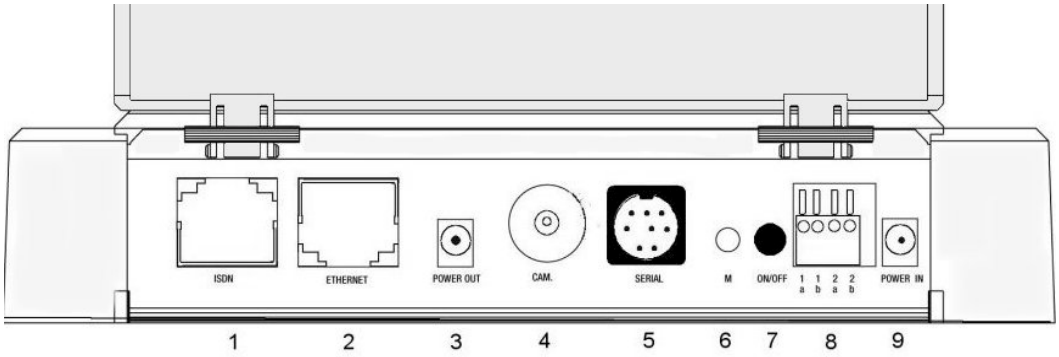


Figure 2: Rear view of the Convision V100

1. ISDN: connection for operating the Convision V100/V200 using an ISDN multi-device connection.
2. ETHERNET: 10/100 Base T connection for using the Convision V100/V200 in a LAN.
3. Power out: 12V DC power supply for the camera
4. CAM: BNC Video Connector for a camera
5. SERIAL: (Mini Din 8) serial interface: used to control external devices, e.g. swivel camera, weather station etc. Convision provides a list of all available devices on its website www.convision.de (also see Chapter 9.1.11).
6. M-Switch: For deleting configuration
7. ON/OFF: pressing this button switches the device on and off.
8. Input connections: used to connect additional devices, e.g. smoke and motion detectors. (see Chapter 8.3)
9. POWER IN: socket for the power supply supplied with the unit

4.2.2 Convision V200

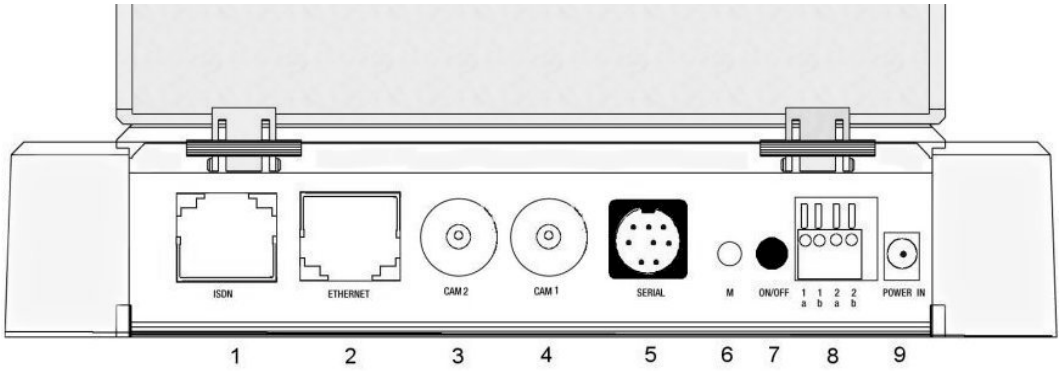


Figure 3: Rear view of the Convision V200

1. ISDN: connection for operating the Convision V100/V200 using an ISDN multi-device connection. .
2. ETHERNET: 10/100 Base T connection for using the Convision V100/V200 in a LAN.
3. CAM2: BNC Video Connector for a camera
4. CAM1: BNC Video Connector for a camera
5. SERIAL: (Mini Din 8) serial interface: used to control external devices, e.g. swivel camera, weather station etc. Convision provides a list of all available devices on its website www.convision.de (also see Chapter 9.1.11).
6. M-Switch: For deleting configuration
7. ON/OFF: pressing this button switches the device on and off.
8. Input connections: used to connect additional devices, e.g. smoke and motion detectors. (see Chapter 8.3)

- POWER IN: socket for the power supply supplied with the unit

5 Connecting the Convision V100/V200

5.1 Connecting the Unit to the Power Supply

Plug the 12-V connector of the power pack cable into the power socket of your Convision V100/V200. Connect the power pack to the power supply socket using the power cable. Activate the on/off switch on the rear of the unit. The power LED will light up.

5.2 Connecting the Unit to the LAN

In a LAN, you have to establish a connection between the Convision V100/V200 and your computer via a hub or switch using a twisted-pair cable with an RJ-45 connector.

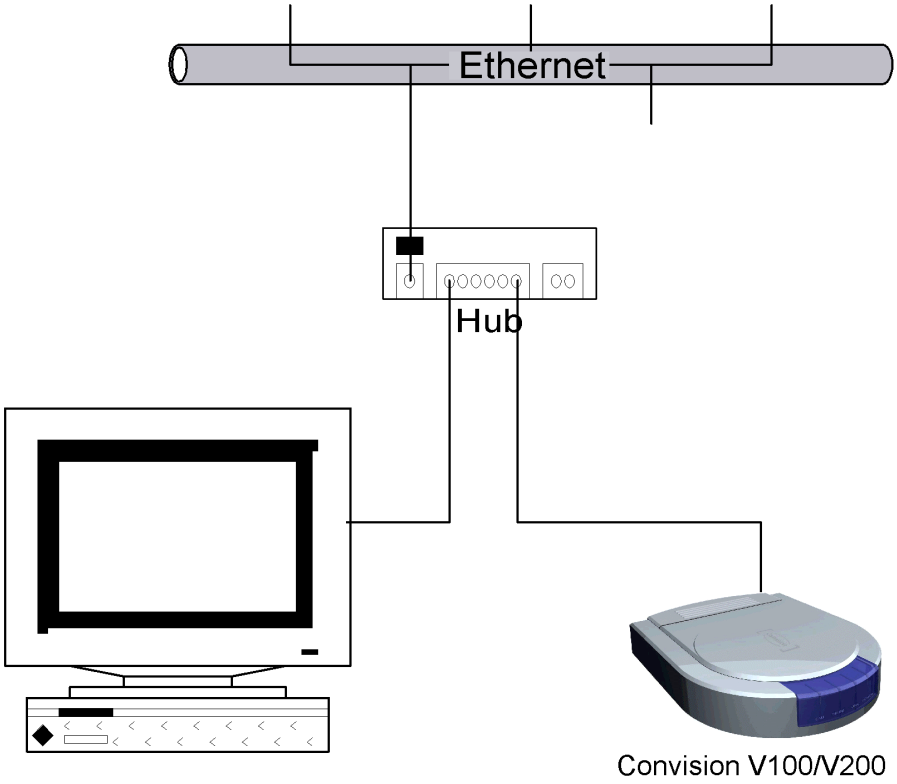


Figure 4: LAN connection

1. Connect one end of the TP cable to the Ethernet output on the rear of the Convision V100/V200 (refer to Figure 2: Rear view of the Convision V100 or Figure 3: Rear view of the Convision V200).
2. Connect the other end of the TP cable to one of the inputs on the hub.

3. The Link/Active LED next to the Ethernet interface will light up. For information on setting the IP addresses, please refer to Chapter 6.2. For detailed information on IP addresses, please refer to Chapter 10.8.

5.3 Connecting the Unit to the ISDN

Your telecommunications network operator provides ISDN access via a network terminator (NT).

1. Plug one end of the ISDN cable provided (labelled "ISDN") into the ISDN port on the rear of the device (refer to to Figure 2: Rear view of the Convision V100 or Figure 3: Rear view of the Convision V200).
2. Plug the other end of the cable into the RJ-45-socket of the ISDN network terminator.

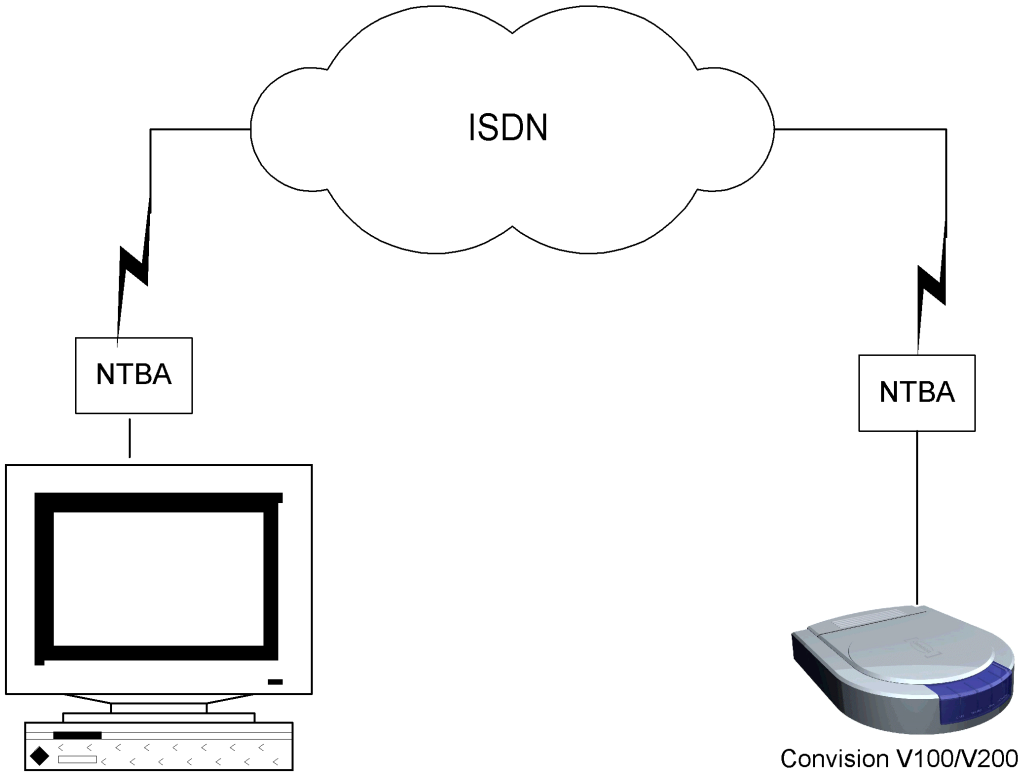


Figure 5: Connection via ISDN

To be able to communicate with your Convision V100/V200 via ISDN, your computer must be equipped with the appropriate ISDN hardware (e.g. ISDN card). For information on installing ISDN hardware, please review the respective manuals of your computer and of the device to be installed. In addition, you have to configure a dial-up networking on your computer (refer to document ”Convision System Configuration“).

Operating the Unit Connected to Telecommunications Equipment

If you want to operate your Convision V100/V200 connected to telecommunications equipment, you have to connect the Convision V100/V200 to the S_0-bus in parallel to an ISDN telephone that can be accessed from your computer.
For the initial configuration, dial the telephone number assigned to the telephone connected. Since this is a data call, the phone will not answer (i.e. the phone will not ring) but the Convision V100/V200 will answer the call.

☞ ***Note:*** *In the case of telecommunications equipment it may be necessary to enable data transmission for the access. For this purpose, contact the manufacturer of the telecommunications equipment.*

5.4 Connecting the Unit via Modem

To operate the Convision V100/V200 via an analogue modem, connect the modem to the serial interface (Serial) of your Convision V100/V200 using a serial cable. Connect the modem to the telephone socket using the telephone cable and to the power supply via the power pack. For information on configuring the unit, refer to Chapter 9.1.2.

5.5 Connecting the Cameras

5.5.1 Convision V100

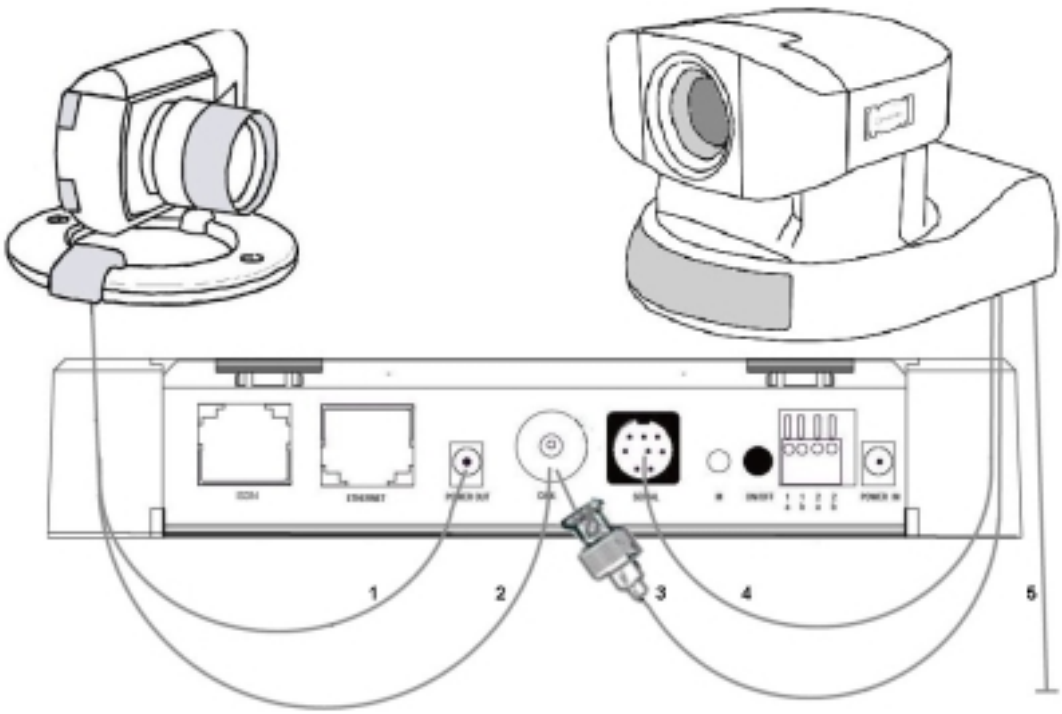


Figure 6: Camera connection to Convision V100

1. To supply the camera with 12V DC, connect the power supply of the camera to the Power out socket next to the Video connection on the rear. The camera can also be supplied with power externally by a separate power supply.
2. Connect the BNC connector to a camera input on the rear of the Convision V100/V200.

Connecting a controllable Camera

3. Connect the video cable via the adapter supplied (Cinch to BNC) to the first camera input of the Convision V100/V200.
4. Connect the control cable (9pin Sub-D to 8pin mini DIN) to the serial input (Serial) of the Convision V100/V200.
5. The camera is supplied with power via the power pack delivered together with the camera.

Define the serial input used on the Configuration / System / Device page (refer to Chapter 9.1).

5.5.2 Convision V200

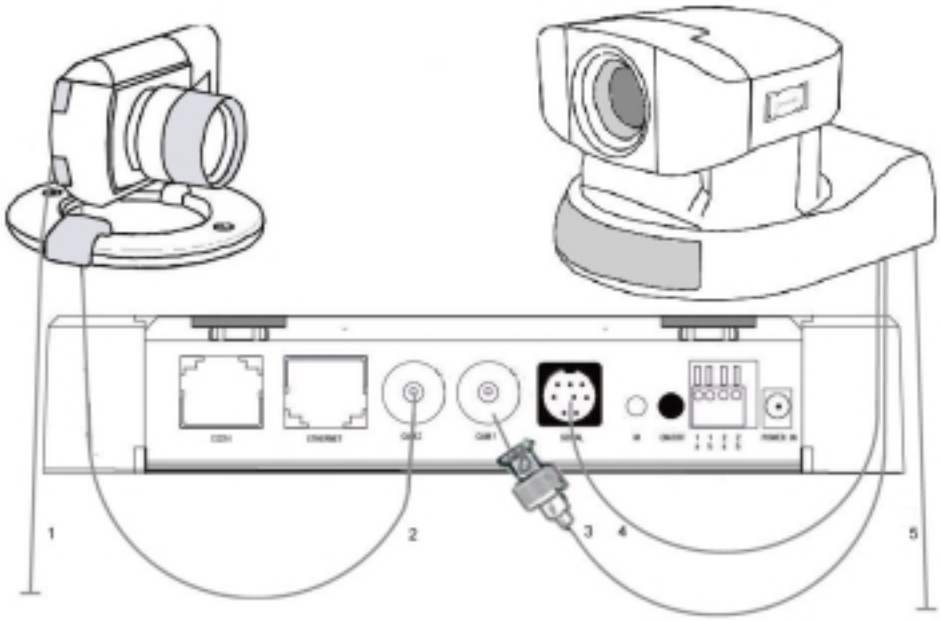


Figure 7: Camera connection to Convision V200

Cameras are connected in the same way as with the Convision V100, but the power is always supplied separately by the power pack included with the cameras.

If you want to connect several controllable cameras to a Convision V100/V200, all the cameras following the first one are controlled via series cable connections of the individual cameras (8pin mini DIN connectors).

You cannot operate 2 different types of controllable cameras simultaneously via the Convision V100/V200.

In some controllable cameras you have to set an internal control address. For this purpose, please use the addresses starting with "1".

For controlling a camera not supported by the Convision V100/V200 you have to enable the "Serial-URL-Port" option on the Configuration/System/Device page. For more information on this topic, please read Chapter 9.1.11 – Serial-URL-Port. The unit is controlled via a separate applet that can be uploaded to the Convision V100/V200 (refer to Chapter 8.4 and 9.1.4).

5.6 Input Connections

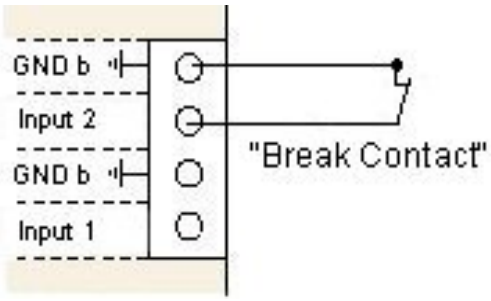
Connect only devices that have been designed for 12V to your Convision V100/V200.
Never use 230 Volts on your Convision V100/V200!

Connecting the Lines to the Terminal Strip

1. Remove approx. 10 to 13 mm of the cable insulation.
2. Using a small screwdriver, press against the clamping device above the receptacle and push the twisted cable into the receptacle.
3. After releasing the clamping device, it retains the cable. Check by pulling gently on the cable.

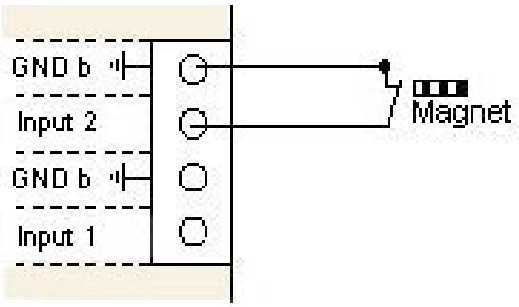
Input Connections

Alarm devices for various purposes can be connected to the six inputs. Please observe that only 12 V devices may be connected to the inputs.



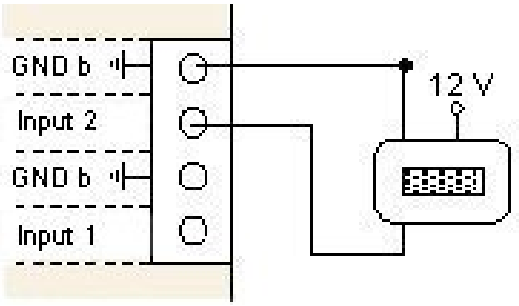
Connection of a switch
Type NC (Normally Closed)
break contact

Fig. 8: Example 1 Input Connection



Connection of a magnetic switch
Type NC (Normally Closed)
break contact

Fig. 9: Example 2 Input Connection



Connection of a motion detector
for alarm units
with own power supply
Type NC (Normally Closed)
break contact

Fig. 10: Example 3 Input Connection

6 Initial Configuration of the Convision V100/V200

For information on the local configuration of your computer, please refer to document “Convision System Configuration“. For information on setting up the browser, please refer to document “Convision System Configuration“.

To establish the first connection with the Convision V100/V200, please follow the configuration procedure in this chapter. If you have already succeeded in establishing a connection with the Convision V100/V200, you can skip this chapter. To customize the configuration of your Convision V100/V200, refer to the detailed description of the configuration options in Chapter 9. There, you will find a description of the menus and buttons together with their functions.

When delivered, the Convision V100/V200 is not configured, i.e. it has not been assigned an IP address or MSN (multiple subscriber number). This is indicated by the slowly flashing Online LED following the booting procedure. For this reason, the unit must be configured. The configuration software "IP Setup" is on the "Products + Partners" CD in the "Software" folder.

There are four different ways to set up the Convision V100/V200 depending on your connection.

1. MSN configuration via ISDN
2. IP Configuration in a Local Area Network
3. IP configuration via a direct link between the PC and the Convision V100/V200 using a cross-connect cable

6.1 MSN Configuration via ISDN (Convision V100/V200 LAN/ISDN only)

To set up the Convision V100/V200 via ISDN, you have to install a dial-up networking on your computer. For information on this topic, please refer to document “Convision System Configuration“.

Once dial-up networking has been configured for establishing a connection to the Convision V100/V200, you can set up the unit. To connect to the Convision V100/V200, establish a dial-up connection. **Do not enter a username** or **password** (refer to PPP Password, Chapter 9.1.2) and click the "Connect" button. The ISDN connection to the Convision V100/V200 will be established.

For operation via ISDN, the IP address 10.0.0.10 has been preset for your Convision V100/V200 but you can change it.

1. Start your browser and enter http://10.0.0.10 as the URL. Your browser will display the homepage of the Convision V100/V200.
2. Click on "Configuration / System / ISDN/Modem", and then "ISDN”

3. Enter the multiple subscriber number (MSN) assigned.
4. If defined, enter the PPP password to prevent unauthorized connection.
5. Save the data.

If you operate more than one piece of ISDN equipment on one ISDN connection, you have to assign each unit a separate MSN number to prevent conflicts.

6.2 IP Configuration in a Local Area Network

Follow the installation procedure below to set up the Convision V100/V200 in the LAN:

1. Install and configure your LAN network (refer to document “Convision System Configuration“).
2. Integrate the Convision V100/V200 into your LAN network as described in Chapter 5.2.
3. Copy the configuration software "IP Setup" from the CD into a directory on your computer.
4. Open the Convision IPSetup program. For this purpose, the computer must be in the same network segment (defined by the network mask) as the Convision V100/V200. In Windows, the program is launched using "IPSETUP.EXE". As this is a Java program, it can also be started by opening "java IPSetup".
5. After a few moments (max. 1 min) the program will display the Convision V100/V200. If the program is not automatically started, double-click the entry and then enter the IP address and the network mask. (For more information about IP addresses and network masks refer to Chapter 10.8).

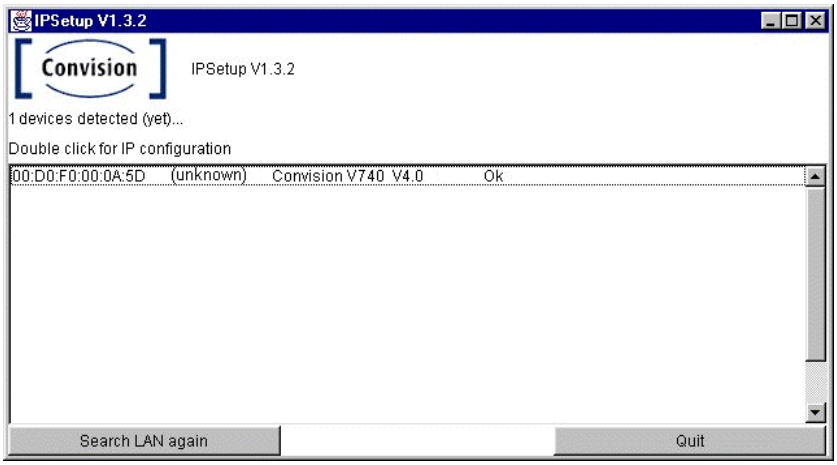


Figure 11: Initial configuration with IPSetup

6.3 IP Configuration via a Direct Connection Using a Cross-Connect Cable

The following hardware and software is required to set up the Convision V100/V200 via a cross-connect cable:

- an Ethernet cross-connect cable
- a computer with an Ethernet network access
- the CD containing the IP Setup software for the Convision V100/V200

Next follow the instructions below:

Connect the Convision V100/V200 directly to the LAN card in your computer using a cross-connect cable.

1. Copy the configuration software "IP Setup" from the CD to a directory on your computer.
2. Open the Convision IPSetup program. In Windows, the program is launched using "IPSETUP.EXE".
   As this is a Java program, calling “java IPSetup” can also start it.
3. After a few moments (max. 1 min) the program will display the Convision V100/V200. Double-click the entry and enter the IP address and network mask. (For more information about IP addresses and network masks refer to Chapter 10.8).

6.4 Deleting the Configuration

If you made a mistake in programming the IP address or network mask or if you have forgotten your password; you can no longer contact your Convision V100/V200. However, in this case you can delete the configuration by performing a factory reset. Once the Convision V100/V200 has been reset, it will be in the initial state, i.e. neither the IP address nor the MSN have been saved yet.
To delete the configuration of the Convision V100/V200 follow the instructions below:

1. Switch off the Convision V100/V200.
2. Switch it back on and hold down the M button on the rear.
3. When the Cam-LED and the Online-LED flash alternately, release the M button. The configuration is deleted.
4. If you hold down the M button further until the Cam-LED and the Online-LED flash simultaneously and then release it, are also modules and applets deleted.
5. The configuration has been deleted when the Online LED starts blinking in intervals of one second after the rebooting procedure. The initial configuration procedure then needs to be repeated.

7 The HTML Pages – Operation and Configuration

After the first successful connection, enter the IP address of your Convision V100/V200 in the address line of your browser.

The Homepage

The homepage of the Convision V100/V200 will be displayed. From this page, you can access all the viewing and configuration pages.

On the left-hand side you can see the navigation menus for opening the various pages. At the bottom of this section you will find all the available languages.

On the right you can see the image from the first camera.

Selecting the Language

The language selected upon delivery is either the default language set in the browser or English. If you want the menus to be displayed in a different language, you have to select this language at the bottom of the homepage.

In the Configuration / System / Language menu (refer to Chapter 9.1.3) you can change the default settings and load additional languages.

Useful Notes on Navigation

In the left-hand bar of the browser window, you can see a field with the entry "Cameras". Click on the arrow to the right of this field to display a list of various menu items. If you click on one of the menu items, the submenu items will be displayed.

- A small square to the left of a list item means that this entry is not subdivided further. Clicking on this list entry will display the associated page in the right-hand area.
- A triangle to the left of the list entry means that there are more submenu items that can be displayed by clicking with the mouse. Clicking on these items displays the associated pages.

For the "Configuration" menu, there is another drop down menu below the first one. This drop down menu contains the items of the individual configuration menus. To be able to use of all the possibilities provided by the Convision V100/V200, you have to configure it first. For this purpose, please read Chapter 9 – Configuration.

8 Operation

8.1 Cameras

In this menu you can view the images from the connected cameras.

Selecting the Viewing Mode

There are various modes for viewing the camera images. Select on the viewing mode by clicking on it:

- Single Shot (JPEG)
- Live-optimized with Server Push (Netscape only)
  with ActiveX (Internet Explorer only)
- Live-compatible with the Java applet developed by Convision Technology
- MPEG

A list of the cameras and multiple views is displayed.

☞ ***Note:*** *A signed Convision Technology ActiveX Plugin for displaying live streams in Internet Explorer is available (for more information refer to document "Convision System Configuration", Internet Explorer.*

Selecting the Camera

Select one of the individual cameras or "View of two cameras" (views of 2 cameras simultaneously). On the right-hand side, the current image is displayed as 384x288(fullsize). The camera name is displayed inside the frame, provided you assigned a name under "Configuration / Cameras / Name".

This icon is displayed if one of the inputs is not connected to a camera.

Selecting the Image Size

Select the image size by clicking one of the three image sizes displayed underneath the image:

- 176 x 144 (halfsize)
- 352 x 288 (fullsize); this is the default size.
- 768 x 576 (hugesize)

When selecting views of multiple cameras, it is not possible to change the size.

☞ ***Note:*** *The loading time for a large image is longer than for a small image.*

Display

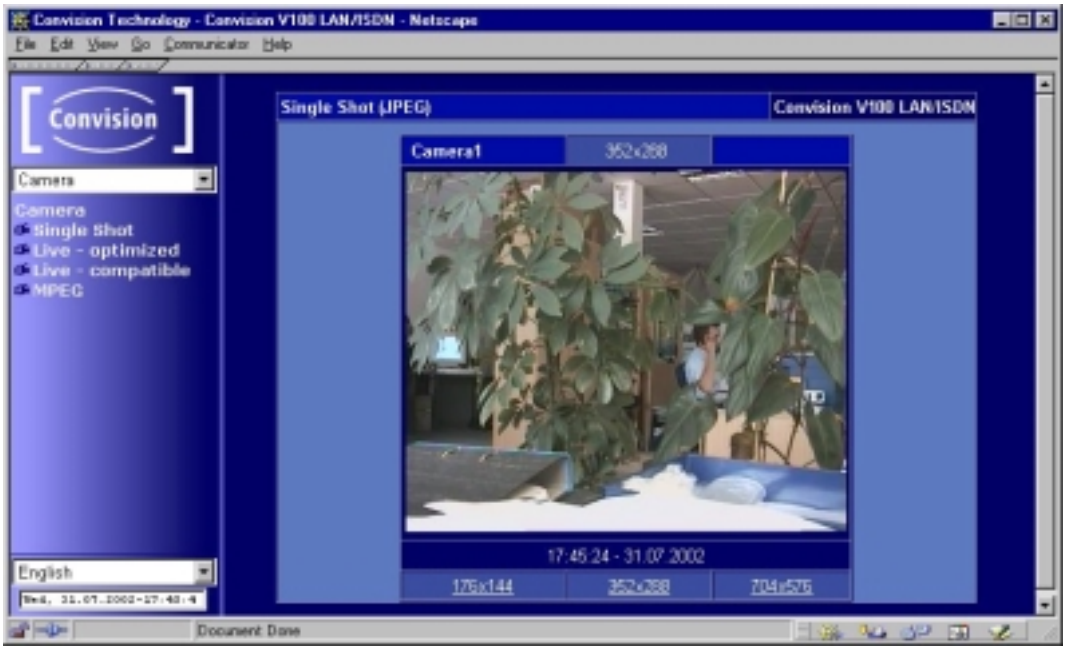


Figure 12: Camera display

When the images are displayed using Live-optimized with ActiveX plugin or Live-compatible, you can access a pop-up menu (to display it, click the image using the right mouse button). This pop-up menu provides options for showing/hiding the date and time and for starting/stopping the image stream. When using Live-compatible, you can also flip the image horizontally and vertically and show the camera name and FPS (frames per second) rate.

Snapshot

In the upper left hand corner of the image in the streaming section you will find the Snapshot icon. Clicking on this during the streaming will result in a JPEG single image being taken. With the right mouse button you can save this in the context menu of your browser.

8.1.1 Controllable Camera

You can connect various controllable cameras to the Convision V100/V200, which can be operated directly via the user interface. Depending on their design, these cameras have different functions. For this reason, the user interface of the Convision V100/V200 varies, depending on the camera connected.

The user interface of a fully controllable camera is shown in Figure 13.

☞ ***Note****: The camera control is always displayed as a live stream with a fullsize image from a single camera.*

In some controllable cameras you have to set an internal control address.. For this purpose, please use the addresses starting with "1".

Figure 13: View of a fully controllable camera

1 Snapshot - Clicking on this during the streaming will result in a JPEG single image being taken. With the right mouse button you can save this in the context menu of your browser.

2 Preset Tour - The camera can be pre programmed for up to 6 different position presets which will be displayed sequentially.

3 Camera presets– storage spaces for selected image sections.
Click on the previously stored preset values to focus the camera on those sections.

4 Save button– opens a dialog box for storing the preset sections.

5 Current camera image – Click a point in the image to focus the camera on the selected point.

6 Horizontal pan range – infinitely variable panning

Stepwise panning left/right, depending on the zoom factor

Panning to the left/right end position

7 Panoramic view of the entire pan/tilt area.

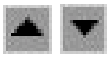
8 Clicking on "Refresh" reconstructs the panoramic view using updated frames.

9 Vertical pan range – infinitely variable panning

Stepwise panning up/down, depending on the zoom factor

Panning to the upper/lower end position

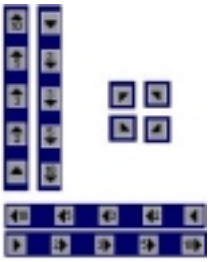
10 Zoom – infinitely variable zooming

 Zoom in stepwise/Zoom out stepwise

Maximum Zoom/minimum Zoom

11 Travel to the home position of the camera.

Depending on the type of camera connected, some of the following controls will be displayed instead of the user interface shown in Figure 13:



By clicking on the triangles the camera swivels 1 to 10 steps in the direction of the arrow. The angle depends on the zoom factor. By clicking on the double arrow, the camera will be moved 10 times further in one movement than with the single arrow.

Adjusting the zoom factor
Zoom in/Zoom out

Setting the image sharpness range for cameras without auto focus.
Close-up focus / remote focus

Adjustment of the light incidence in the lens.
Closed iris/open iris

Saving Presets

☞ ***Note:*** *If the configuration protection function is activated, administrator rights are required for the storage process.*

1. For some controllable cameras you can save specific image sections as preset sections (Presets). For this purpose, focus on the desired point within the pan area of the camera.
2. Set the desired zoom factor.
3. Click on the diskette icon. A dialog box for saving the current image section related to a position number is displayed.
4. Click the desired position and assign it a name.
5. Save the data. The dialog box is closed.

Now you can always focus on that point by clicking the respective position number. The names will be displayed as a tool tip whenever the mouse cursor is positioned on the number. The preset sections can also be addressed due to an event (refer to Chapter 9.3).

Preset Tour

1. Configure the desired presets.
2. Click on the icon . This opens a dialogue box.
3. Click on the desired number position and input the desired amount of time.

4. Save the data.
5. Start the “Tour“ by clicking on start. The black indicator and the ”Tour“ icon will change to red.
6. End the “Tour“ by clicking on “stop“. The red indicator and the “Tour” icon will change to black.

☞ ***Note:*** *If the configuration protection function is activated, administrator rights are required for the storage process.*

8.1.2 MPEG

The MPEG compression reduces the quantity of data for the image sequences in comparison to JPEG images considerably. This is made possible by the fact that only the differences to the last image are transferred, not the entire image. This means that it is, for example, sufficient to only store each fifteenth image as JPEG and those in between as differences.

The MPEG standard defines a quantity of 25 images per second. For compensation, the ratio of JPEG images to difference data is changed at low data transmission rates. The lower the transmission rate, the lower the number of JPEG images used, moreover, it is also possible to display one image double instead of two images one after another in sequence. However, this makes the video stream less fluent.

There are various decoders for playing back MPEG streams which allow streaming, i.e. play back while the data is being downloaded. Nevertheless, there is a certain chronological delay between recording of the images and playback in the browser.

Possible decoders include a JAVA-Applet and the Microsoft Windows Media Player which is based on ActiveX technology.

The simultaneous viewing of two different MPEG-Streams or one MPEG-Stream and one JPEG-Stream is not possible.

8.1.3 Sequencer (Convision V200 only)

The sequencer allows you to program the cameras to be viewed sequentially for a specified time, without having to manually shift between the cameras.

Configuration

- Click the activation box before each camera you want to view.
- Input the time in seconds you want to view the camera for.
- Save the data.

You can also set the sequencing configuration in the “Configuration/Camera/Sequencer“ menu.

Start sequencer

- Click on either Live-optimised or Live-compatible. You will see the images, depending on your browser configuration, either in Live-optimised or Live-compatible mode.

Stop sequencer

- Click on “Save“ in the configuration menu

8.2 Frame Buffer Display

Frame buffers are storage spaces in the main memory of the Convision V100/V200. In these buffers you can store as many as 32 pre and post-event images per camera.

Each camera is assigned one frame buffer. This means, images recorded by camera 1 are exclusively stored in frame buffer 1 etc. Any one event can be stored in several frame buffers. Each frame buffer can store multiple events.

Requirements

- Configure and activate the frame buffers by selecting the Configuration menu in the first drop down menu and Frame Buffer in the second drop down menu. Then select Frame Buffer in the menu displayed (refer to Chapter 9.4.1).
- An event that you assigned the recording in a frame buffer as an action has occurred.

If the above requirements have been met, the images stored in this buffer will be displayed.

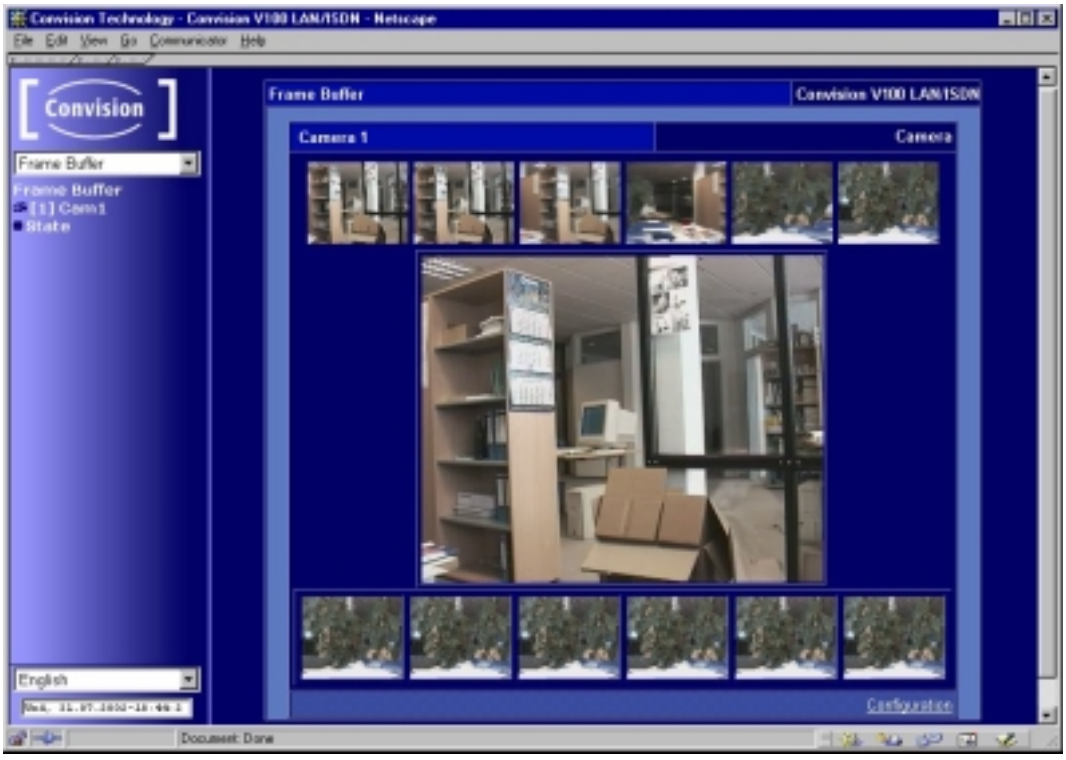


Figure 14: Displaying the images in the frame buffer

1. Select a camera (frame buffer).
2. The pre-event images are displayed at the top, the first image is displayed enlarged in the center of the window and the post-event images are displayed at the bottom.
3. Clicking on an image will enlarge it.

☞ ***Note:*** *The frame buffers are automatically restarted as soon as your images are sent by email or VdS 2465. The next pre-event images will then be displayed. A frame buffer that was activated but not sent will not be restarted. In this case, all the pre-event and post-event images will be displayed.*

State

This menu displays a status overview of the frame buffers (red button = started, black button = stopped).

8.3 Applications

The Convision V100/V200 supports various devices that can be controlled via the serial interface, such as weather stations or controllable sockets (not included in the scope of delivery).

8.3.1 Sockets

Remote controllable sockets with a serial connector supported by Convision Technology can be controlled using a Convision V100/V200 via the serial port. In this menu you can switch the sockets on or off.

For this purpose select the socket and the seriel interface (Serial) under „Configuration / System / Devices“.

8.3.2 Weather Station

If a weather station supported by Convision Technology is connected to your Convision V100/V200, e.g. the Huger WM918, a list with all the data transferred, such as temperature, wind speed and wind direction will be displayed. For this purpose select the weather station and the serial interface (Serial) under „Configuration / System / Devices“.

The data from the weather station can be sent via FTP Upload or E-Mail. (refer to Chapter 9.4).

8.4 Applets

To extend the possibilities already provided by your Convision V100/V200, you can load your own applets with additional controllers for other devices. Applets are programs executed in the browser. Depending on these applets, the associated HTML pages will be displayed.

You can upload the applets to the Convision V100/V200 via "Configuration / System / Applet" (refer to Chapter 9.1.4). Storage for applets is limited. If further applets can not be uploaded then you will receive the following message „Input error or wrong file!“.

8.5 Modules

Modules are software programs that perform various functions in the Convision V100/V200, thus enhancing the firmware. For modules that you can upload to the device if desired, please visit www.convision.de. Depending on the functions of the individual modules, module-specific HTML pages will be displayed. Some of the modules may also be an extension of existing HTML pages.

Each module is supplied together with a PDF document containing a description and operating instructions.

You can upload the modules to the Convision V100/V200 via "Configuration / System / Module / Upload" (refer to Chapter 9.1.5). Storage for modules is limited. If further modules can not be uploaded then you will receive the following message „Input error or wrong file!“.

8.6 Information

This menu displays the current firmware version of your Convision V100/V200 and the creation date of this firmware. If a new software version is available for download at www.convision.de, you can update your Convision V100/V200 (refer to Chapter 9.1.7).

Below the date is the serial number of your Convision V100/V200. Each unit has its own serial number. You can use it, for example, as a registration number when connecting to the ConvisionCall server (refer to Chapter 9.1.2).
The serial number is also printed on a label underneath your Convision V100/V200.

9 Configuration

If the configuration protection function is activated, only the administrator is permitted to change the settings in this menu.

9.1 System Settings

Use these menus for making general system settings. These include the connections, security settings, uploading various files, activating the FTP server and assigning the serial interfaces. In addition, this menu also provides the Event log. The event log records the configurations you made, system processes and errors that occurred.

9.1.1 LAN/Ethernet Connection Data

If you want to integrate your Convision V100/V200 in a LAN using a permanent IP address, you can enter various IP addresses via this menu.

IP Addresses

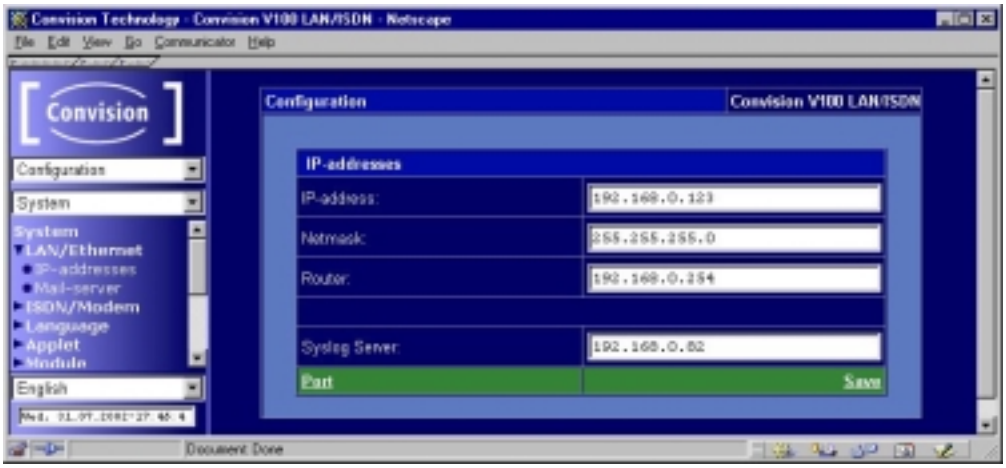


Figure 15: Configuring the IP addresses

During the initial configuration using IPSetup (refer to Chapter 6.2 or 6.3), you have already assigned an IP address and a network mask. This data is now displayed on this page. You can change this if desired. After a change you will be prompted to reboot the device. For this purpose, click the "Reboot" button.

☞ ***Note:*** *If your Convision V100/V200LAN/ISDN is connected via ISDN only, i.e. you assigned an MSN at initial configuration (refer to Chapter 6.1), these fields will be blank. You do not need to enter any data.*

If you do not know the individual IP addresses, ask your system administrator.

The IP address must be unique, i.e. it must not be assigned to another computer in the network. You can use the Ping command to check whether or not an IP address

is still available for the Convision V100/V200
(refer to document “Convision System Configuration“). (For more information about IP addresses and network masks refer to Chapter 10.8)

Configuration of a Port Number

The default ports for the IP Video Server are 80 (HTTP) and 21 (FTP). You do not need to specify these ports. If you require another port, click on “Port“ and replace the default settings with your own data. Save the data and reboot the video server.

Access: Write the IP address with a colon and the new port number in the address line of the browser.

```
http://192.168.0.111:8050
```

Only change this port if you have sufficient TCP/IP knowledge.

The Router Entry

If you are using a default router in your network to connect to the Internet, enter its IP address in the "Router" field. All the IP addresses outside the LAN will then be accessed via this router.

The DNS-server entry:

In this field you have to enter the IP address of a DNS (Domain Name Service) server (a DNS server converts an alphanumeric address to an IP address). In this case, you should select the DNS server of the provider set in the Convision V100/V200. For information on this topic, please revert to your provider.

Syslog-Server

A syslog server receives messages and error messages in a LAN. If you are operating a syslog server in your network, the Convision V100/V200 can send its messages to this server, similar to the event log. If your network does not include a syslog server, this field should remain empty.

The default port for a syslog server is 514. If you have set up your syslog server on another port, you can change this in the “Port” section.

☞ ***Note****: It makes sense to specify a syslog server only if it can be accessed via the Ethernet.*

Mail Server

The mail server must be specified if you are intending to send e-mails or SMS via the LAN connection to the Internet. If you want to send mail via an ISDN connection, you have to enter the respective data via the ISDN/Modem item.

1. Enter a DNS server (refer to Chapter 10.8 – The Domain Name System).

2. Now enter the SMTP server (mail server) of the LAN or your provider.
3. Enter the address of the sending Convision V100/V200. This address must be registered with the provider.
4. Select the authentication method as required by the provider.
5. Enter the user name and password. (refer to Chapter 10.6).

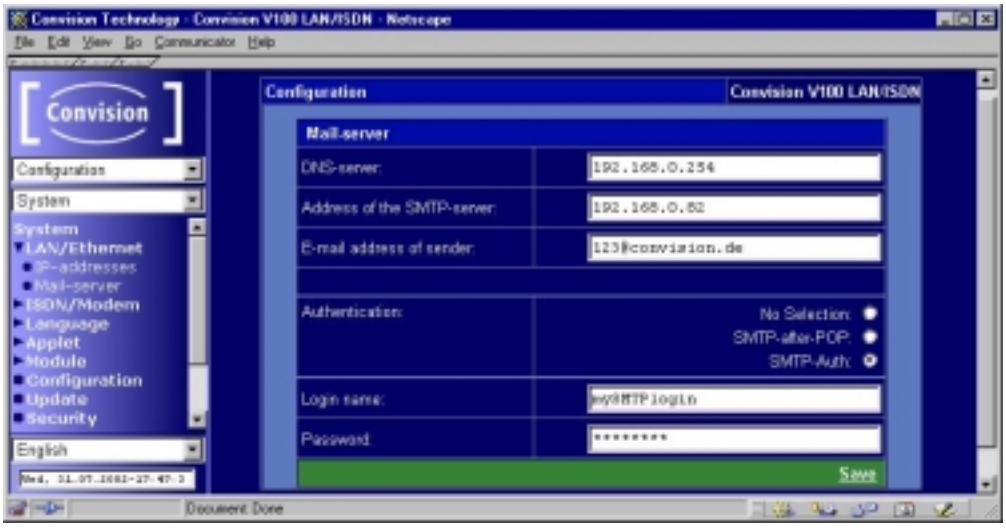


Figure 16: Configuring the mail server

9.1.2 ISDN/Modem Connection Data

If the Convision V100/V200 is operated via an ISDN connection or a modem, enter the connection data via this menu item. The Convision V100/V200 can be connected either via ISDN or via an analogue modem. It is not possible to operate the two connections at the same time.

The user can only establish a connection to the Convision V100/V200 if both the user and the Convision V100/V200 are using either analogue connections or ISDN connections. Data transmission from an analogue modem to ISDN is possible only over ConvisionCall.

☞ ***Note:*** *Please check whether you need to enter additional zeroes for your telephone system.*

General

Every time you change or update something in this menu, you will be asked to restart the Convision video server to save the changes. Click the “Reboot” button to do this.

Setting the IP Address

The IP address preset for devices accessed via ISDN connections is 10.0.0.10. If you want to access multiple devices via the same ISDN connection and a router, you can enter further addresses and network masks. After a change you will be prompted to reboot the device. For this purpose, click the "Reboot" button. (For more information about IP addresses and network masks refer to Chapter 10.8)

PPP Host Name

As a rule, routers identify IP video servers by the MSN. However, some routers also use the host name for the device. The default name is “ConvisionVideoWebserver“, but you can change this here.

Selecting ISDN or Modem

Choose one of these two buttons to specify whether your Convision V100/V200 is connected via ISDN or a modem.

ISDN Connection to the Convision V100/V200 (Convision V100/V200 LAN/ISDN only)

1. In the "Phone number (MSN)" field, enter the multiple subscriber number (MSN)) for dialling the Convision V100/V200.

☞ ***Note****: Normally, when using a telephone system, you have to enter only the extension as the telephone number.*

2. Enter the user name in the "Identification for PPP" (point-to-point protocol) field.
3. Enter the password in the "Password for PPP" field.

☞ ***Note****: The data you enter in these fields must also be entered in dial-up networking when establishing an ISDN connection (refer to document “Convision System Configuration“).*

☞ ***Note****: The PPP login name and password are advisable for security reasons if the Convision V100/V200 is addressed directly via an ISDN connection because a connection can be established even if access to the device is protected by the user password (refer to Chapter 9.1.8).*

4. If supported by your provider, activate the password encoding option if desired (refer to Chapter 10.4).
5. If supported by your provider, activate the channel bundling option if desired (refer to Chapter 10.5).

When setting up dial-up networking, than you have to enable multi-channel connection set up (refer to document “Convision System Configuration“).

6. Save the data.
7. You will be prompted to reboot the device. For this purpose, click the "Reboot" button.

Figure 17: Configuring the ISDN parameters

Connecting to different Providers

The Convision V100/V200 needs the connection data to be able to establish a connection via a provider, e.g. to send e-mail,
to perform an FTP upload or
to establish a connection to ConvisionCall.

While connected to a provider, the Convision V100/V200 cannot be accessed via the default router.

By entering multiple providers, it is possible to establish alternative connections automatically, if the first attempt at establishing a connection fails. Apart from that, you can select different connections for different tasks.

1. Select one of the eight connection buttons on the "Connections" button bar.
2. Assign a name.
3. Enter the phone number of the provider.
4. Enter the user name in the "Identification for PPP" (point-to-point protocol) field.
5. Enter the password in the "Password for PPP" field.
6. If supported by your provider, activate the password encoding option if desired (refer to Chapter 10.4).
7. If supported by your provider, activate the channel bundling option if desired (refer to Chapter 10.5).

When setting up dial-up networking, you have to enable multi-channel connection set up (refer to document “Convision System Configuration“).

☞ ***Note**: If your provider does support channel bundling but it is not possible to bundle the two lines, the connection will be terminated with an error message in the event log (refer to Chapter 9.1.12).*

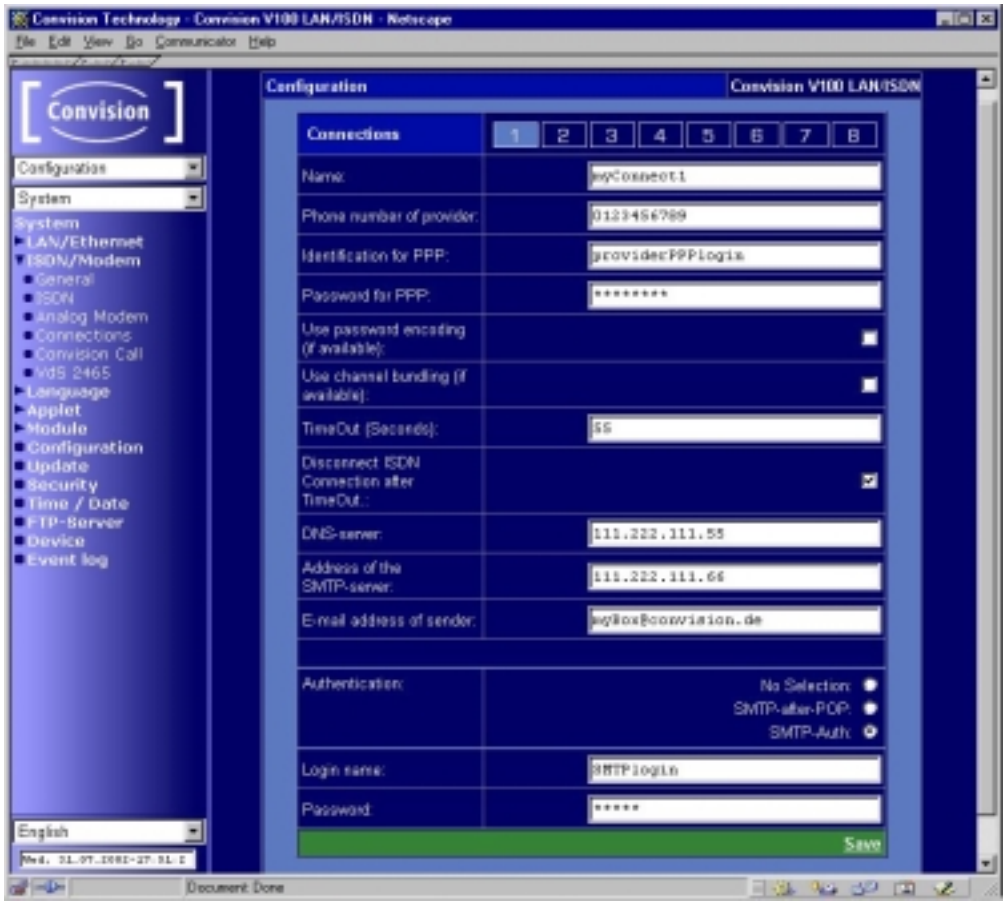


Figure 18: Configuring connections

8. TimeOut specifies the time period the Convision V100/V200 remains connected to the provider after the last data has been transferred. 55 seconds is the default time period. If desired, enter a different time in seconds (max. 99999 seconds).
9. Deactivate the checkbox if you want to terminate the connection immediately after the last data has been transferred or upon interruption of the data stream.
10. Enter the DNS server of the provider (refer to Chapter 10.8 – The Domain Name Service) .

The following data needs to be entered only if you want to use this connection for sending e-mail or SMS!

11. Enter the SMTP server (mail server) of the LAN or your provider.
12. Enter the address of the sending Convision V100/V200. This address must be registered with the provider.
13. Select the authentication method as required by the provider.
14. Enter the user name and password (refer to Chapter 10.6).

Configuring the Modem

In the "Analog Modem" menu you will find settings for a modem that supports the extended Hayes command set.

The init strings for initializing the modem depend on the modem used. The init strings for your device can be found in the operating instructions of your modem.

Make sure that you have chosen “Modem” under „Configuration/System/ISDN-Modem/General”!

1. Enter the login name for identification for PPP.
1. Enter the PPP password.
1. If the values for your modem differ from the settings, please enter the correct strings.
2. Save the data.
3. You will be prompted to reboot the device. For this purpose, click the "Reboot" button.
4. If you made a mistake, click on "Default" to restore the settings.

After changes to this data, you have to reboot your Convision V100/V200.

ConvisionCall (Convision V100/V200 LAN/ISDN only)

ConvisionCall is a service offered by Convision Technology GmbH so that you can easily reach your Convision V100/V200 connected via ISDN. Apart from that you save the costs of an ISDN long-distance call since the Convision V100/V200 connects to the ConvisionCall server via your local Internet provider at an economical rate and with a dynamic IP address.

☞ ***Note:*** *The connection costs incur on the Convision V100/V200 side because it sets up the connection.*

☞ ***Note:*** *Only the connection set up is made via the ConvisionCall server, not the data transfer.*

☞ ***Note:*** *When selecting a connection with channel bundling to the provider (refer to Chapter 9.1.2), only one access at a time can be made to the Convision V100/V200. For setting up another connection, there is no other free B-channel for signaling.*

To be able to use this service, you need register with the ConvisionCall server. This connection can also be set up if the user connects via an analogue modem. However, the Convision V100/V200 must be connected via ISDN.

1. Turn on ConvisionCall by clicking the "Activate" checkbox.
2. The IP address of the ConvisionCall server and the associated telephone number has already been entered. If the installation site of your Convision V100/V200 is not in Germany, you have to enter the country code (0049).
3. Select the connection which you want to use with ConvisionCall. You may also select a fallback connection, when an error occurs with the first one. Make sure that the timeout is activated in the connection configuration page.
4. To be able to use this service, you need to register with the ConvisionCall server.

For more information on ConvisionCall, please visit: http://www.convision.de/convision/_de/convisioncall/call.html. To register, you need the serial number and the connected ISDN telephone number of the Convision V100/V200. The serial number is located on a sticker underneath the Convision V100/V200 and on the HTML pages in the "Information" menu.

Registration and Configuration

1. Use a browser to open the Convision website www.convision.de, click the "ConvisionCall" button and select "Register to ConvisionCall- Server".
2. Fill in the registration form and save it. You are now registered with the ConvisionCall server and in future you need only enter your login name and password to log in.

☞ ***Note:*** *Please check whether you need to enter additional zeroes for your telephone system.*

3. Click "To Convision IP Video server". Enter your login name and password.
4. Click on the “Add” button; enter the data of your Convision V100/V200. Save your data. A window containing the data you just saved will be displayed.

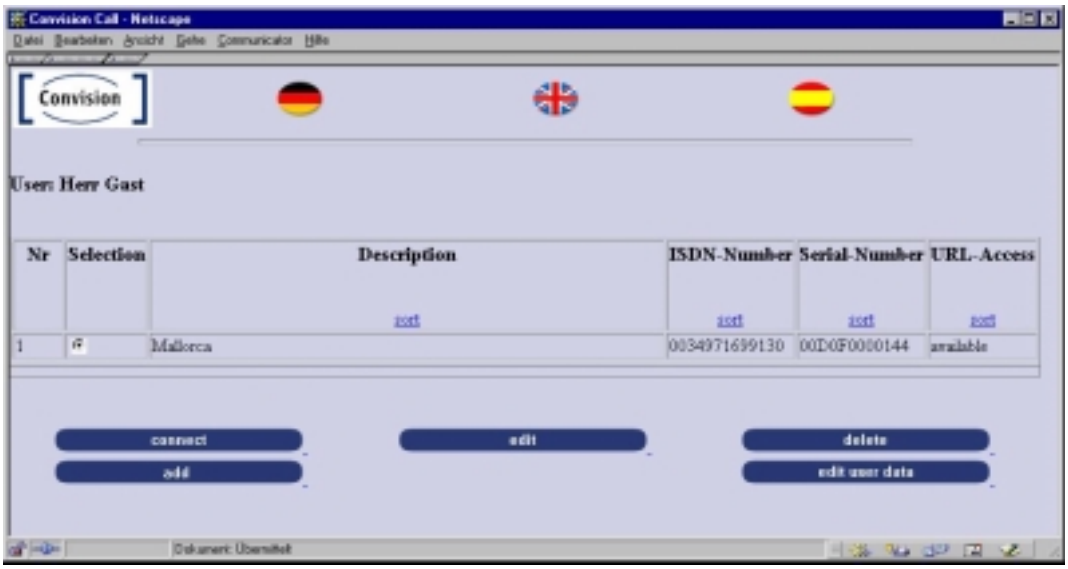


Figure 19: Configuring the ConvisionCall server

5. Open a second browser window and position the two browser windows in such a way that you can access both windows.
6. In the 2nd browser window, open the configuration page of your Convision V100/V200 (Configuration / ISDN / ConvisionCall) and click the "Control" button. The Convision V100/V200 will now wait for a call from the ConvisionCall server (for the set timeout) to learn the phone number of the server.

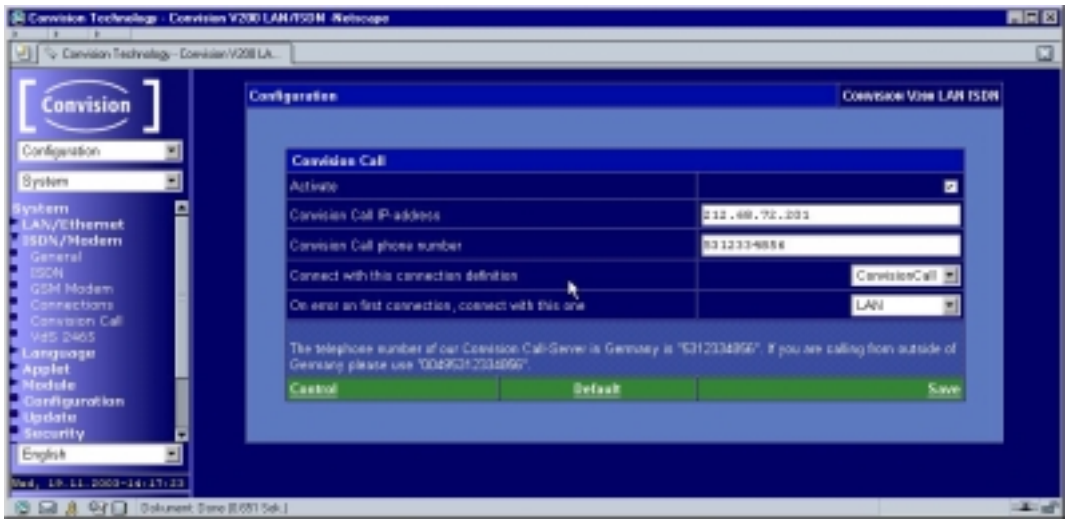


Figure 20: Configuring ConvisionCall in the Convision V100/V200

7. Immediately (within the set timeout, refer to Chapter 9.1.2 Connecting to Different Providers) select the "Connect" option in the first browser window. The server will now call your Convision V100/V200. The Convision notices that it is being called but does not answer the call. Instead, it updates (if applicable) the number of the ConvisionCall server and establishes a dial connection to the Internet via the Internet Provider.
8. Once the connection has been successfully established, the "Call received" message will be displayed.
9. The ConvisionCall telephone number has probably now been corrected automatically. Save the data again.

☞ ***Note:*** *If you call the Convision V100/V200 via dial-up networking and there is not enough free telephone lines, disconnect dial-up networking to your Convision V100/V200 immediately after you clicked the "Control" button.*

Using ConvisionCall

1. Use a browser to call the Convision website www.convision.de .
2. Click the "ConvisionCall" button.
3. Click "To Convision IP Video server".
4. Log in to the ConvisionCall server using your name and password.
5. Select a Convision V100/V200 in the window displayed (refer to Figure 19: Configuring the ConvisionCall server) and click "Connect".
6. You will be connected to your Convision V100/V200.

The connection will automatically be terminated when data is no longer being transferred. If a timeout is set, the connection will be terminated after the timeout has elapsed (refer to Chapter 9.1.2 Connecting to Different Providers).

Click "Connect again" if you want to re-establish the connection to the Convision V100/V200.

VdS – Alarm Notification in Compliance with VdS 2465 (Convision V100/V200 LAN/ISDN only)

Apart from TCP/IP, the Convision V100/V200 can alternatively use a special alarm protocol (VdS 2465) to send alarm messages. These messages are sent via an ISDN connection to an alarm center. At the alarm center, special software receives and decodes these messages so that measures can be taken immediately.

This menu is used to define the parameters for connecting to the alarm center. The individual messages are defined in the "Action / VdS 2465" submenu (refer to Chapter 9.4.6).

1. Enter the telephone number of the alarm center that will answer your alarm message.
2. Enter the VdS identification. Your alarm center provides this ID to identify your Convision V100/V200.
3. Periodic reporting to the alarm center serves for verifying whether your Convision V100/V200 is operational.
4. Indicate at which time the monitoring message is to be sent.
5. Indicate the line for the monitoring message

VdS alarm notifications can only be sent to an alarm center with the facilities to process these messages.

VdS alarm notifications can only be sent via ISDN.. Sending with a modem is not possible.

9.1.3 Language

Selection

By default, the Convision V100/V200 menus can be displayed in German, English, Spanish or French. Upon the first access to the Convision V100/V200 user interface, the current browser setting is used.

Via this menu, you can select the language or you can continue using the default language of your browser.

For this purpose, activate the associated button.

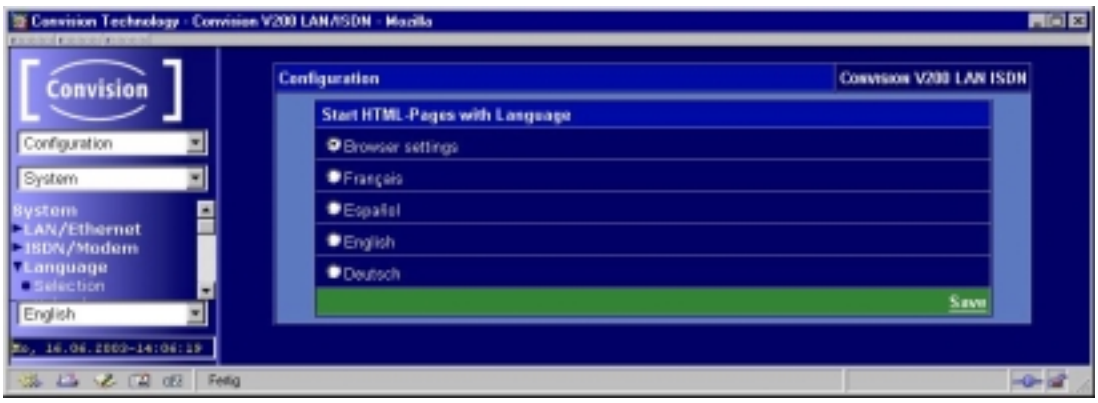


Figure 21: Selecting the language

Upload

You can add a language version by uploading a file containing all the menu texts to the Convision V100/V200.

Modules with other languages are available on the Convision Website www.convision.de. Download the desired language module to your computer.

1. To upload the language module to the Convision V100/V200, enter the file name (extension .lgf) together with the complete path to the directory in which it is stored.
2. Alternatively you can click the "Browse" button to search for the file. Once you have located it, double-click to add it to the input line.
3. Then click the "Upload file" button.

Do not switch off the Convision V100/V200 during the upload procedure. Do not access the Convision V100/V200 in any other way during the procedure.

9.1.4 Applets

In this menu, you can load your own applets to the Convision V100/V200, e.g. for controlling other devices via the serial interface. In the "Applets" menu (refer to Chapter 8.4), you can display the associated HTML page. You can delete an applet that you do not need any longer.

You can download a sample applet that you can adapt to your needs free of charge on the Convision Website www.convision.de.

Upload

1. To upload an applet to the Convision V100/V200, enter the file name (extension .jar) together with the complete path to the directory, in which it is stored.
2. Alternatively you can click the "Browse" button to search for the file. Once you have located it, double-click to add it to the input line.

3. Then click the "Upload file" button.

Do not switch off the Convision V100/V200 during the upload procedure. Do not access the Convision V100/V200 in any other way during the procedure.

Delete

When clicking the delete menu item, a list of all the applets you have already uploaded will be displayed. If you want to delete one of these modules, select it and then click the "Delete" button.

For an HTML display of your applet, select the "Applets" menu (refer to Chapter 8.4).

9.1.5 Modules

Modules are software programs that perform various functions in the Convision V100/V200, thus enhancing the firmware. For modules that you can upload to the device if desired, please visit www.convision.de.

Via the "Module" item in the "Configuration" menu, you can upload further modules to the Convision V100/V200, activate modules or delete them.

The HTML page of a module is displayed either via the "Module" menu (refer to Chapter 8.5) or as an extension to an existing HTML page.

Upload

1. To upload a module to the Convision V100/V200, enter the file name (extension .mod) together with the complete path to the directory in which it is stored.
2. Alternatively you can click the "Browse" button to search for the file. Once you have located it, double-click to add it to the input line.
3. Then click the "Upload file" button.

Do not switch off the Convision V100/V200 during the upload procedure. Do not access the Convision V100/V200 in any other way during the procedure.

Delete

When clicking the delete menu item, a list of all the modules you have already uploaded will be displayed. If you want to delete one of these modules, select it and then click the "Delete" button.

9.1.6 Configuration – Saving and Uploading

You can save all the configuration data of your Convision V100/V200 in a binary encoded file (default "convision.cfg") on your computer.

To save the file, click "Save configuration to file". Select the desired directory in the dialog box displayed.

You can upload the saved file to other devices of the same type and thus easily transfer the settings you made. You can also use this file to define the basic configuration. If you made undesired changes, for example, you can easily restore the original configuration using this file.

After you transferred the configuration file to other devices, you must assign a new IP address/MSN.

The device associated with the IP address set in the configuration file must not be reachable within the LAN when the file is transferred to another device. As soon as you have transferred the file, change the IP address if the two devices are to be reachable within the LAN at the same time. Switch on the other device only after you have made these changes.

1. To upload the configuration file to the Convision V100/V200, enter the file name (extension .conf) together with the complete path to the directory in which it is stored.
2. Alternatively you can click the "Browse" button to search for the file. Once you have located it, double-click to add it to the input line.
3. Then click the "Upload file" button.

Do not switch off the Convision V100/V200 during the upload procedure.
Do not access the Convision V100/V200 in any other way during the procedure.

9.1.7 Update – Uploading New Firmware

Via this submenu you can upload new firmware versions to the Convision V100/V200.

The software is continuously updated and its performance improved. The latest version of the software is available for download free of charge as a ZIP file on the Convision website www.convision.de.

1. To update the software, enter the full path of the directory to which you unzipped the update file on your computer after downloading.
2. Alternatively you can click the "Browse" button to search for the file. Once you have located it, double-click to add it to the input line.
3. Then click the "Upload file" button.

Do not switch off the Convision V100/V200 during the update procedure.
Do not access the Convision V100/V200 in any other way during the procedure.

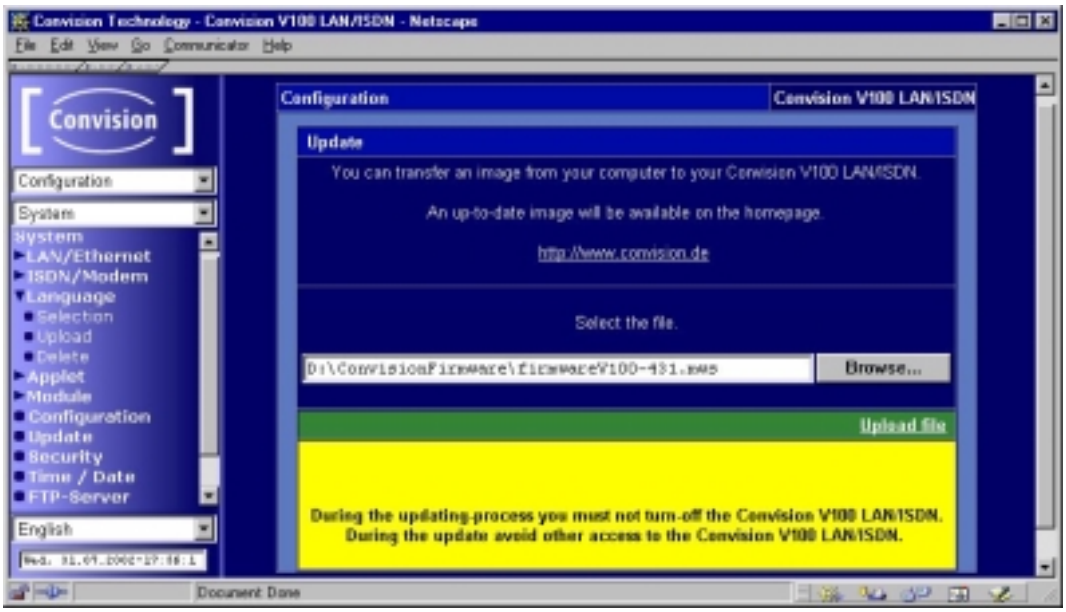


Figure 22: Update dialog box

☞ ***Note:*** *Following an update, controllable cameras may not be initialized correctly. In this case, switch off the camera and the Convision V100/V200, and then switch on the camera first. Wait for the camera self-test to complete and then switch on the Convision V100/V200.*

9.1.8 Security Settings

In this submenu you can define security measures against unauthorized access to your Convision V100/V200. There are three levels for protecting the Convision V100/V200 against unauthorized access.

Save your data once you have entered the passwords and activated the respective levels.

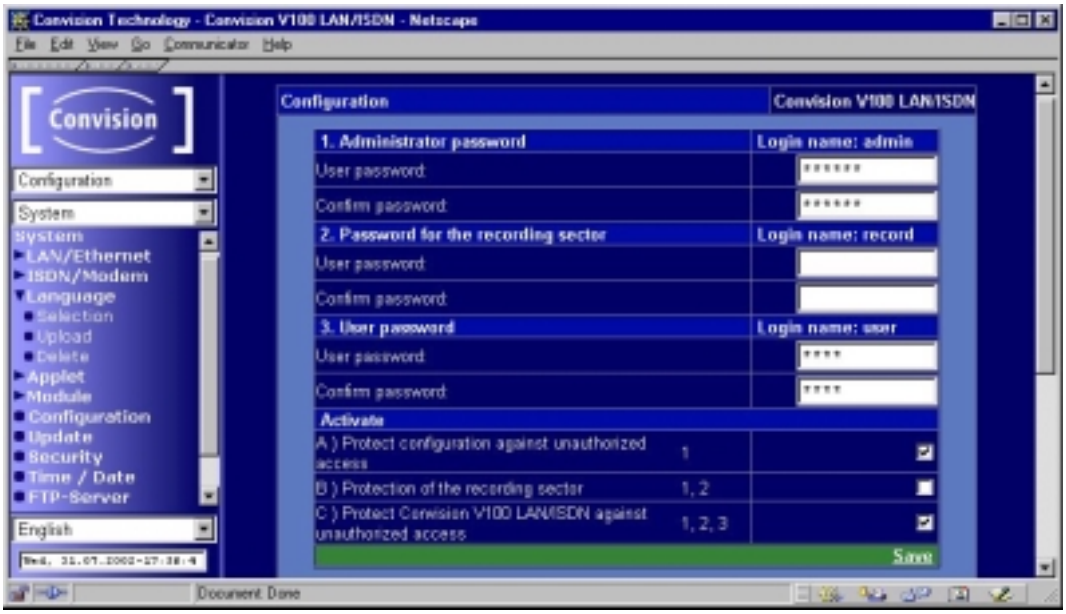


Figure 23: The three security levels

Protecting the Configuration against Unauthorized Access

If you want to protect the configuration settings against unauthorized access, enter a password in the "Administrator password" area and confirm it. Then activate the "Protect configuration against unauthorized access" checkbox.

Now a prompt for entering the administrator password will be displayed as soon as the "Configuration" menu is selected. A user with the login name "admin" will always be granted access to all the areas of the device.

The login name for the administrator is “admin” and cannot be changed.

Protecting the Recording Sector against Unauthorized Access

If you also wish to protect the recording sector, i.e. the access to the frame buffer , enter a password in the "Password for recording sector" area and confirm it. Then activate the "Protection of the recording sector" checkbox.

Now a prompt for entering the password for the recording sector will be displayed as soon as the "Record" menu is selected. A user with the login name "record" always has access to all the areas. An exception is the "Configuration" menu, provided it has been password-protected.

The login name for the recording sector is “record” and cannot be changed.

Protecting the Device against any Unauthorized Access

You also have the possibility of protecting the Convision V100/V200 against unauthorized access in general. For this purpose, enter a password in the "User password" area and confirm it. Then activate the "Protect Convision V100/V200 against unauthorized access" checkbox.

Now a prompt to enter the user password will be displayed upon any access to the Convision V100/V200. A user with the login name “user” cannot access the "Configuration" and "Frame Buffer" menus, provided these have been password-protected.

The login name for the user section is “user” and cannot be changed.

9.1.9 Setting the Time and Date

The date and time are set upon delivery of the Convision V100/V200. If these settings are not correct due to different time zones, you can change them via this menu item. Save the data.
These two settings are buffered for a certain period even without an external power supply via a backup battery.

Your Convision V100/V200 can automatically change from summer to winter time. The time conversion is done in MESZ (Middle European Summer Time) and is already configured for the next few years. If you do not require this, simply delete the pre-configured time.

9.1.10 Activating the FTP Server

Use this menu to activate the Convision V100/V200 as an FTP server. When this option is activated, the camera images can be downloaded using either HTTP (Hypertext Transfer Protocol) or FTP (File Transfer Protocol).

After changes to these data, you have to reboot your Convision V100/V200.

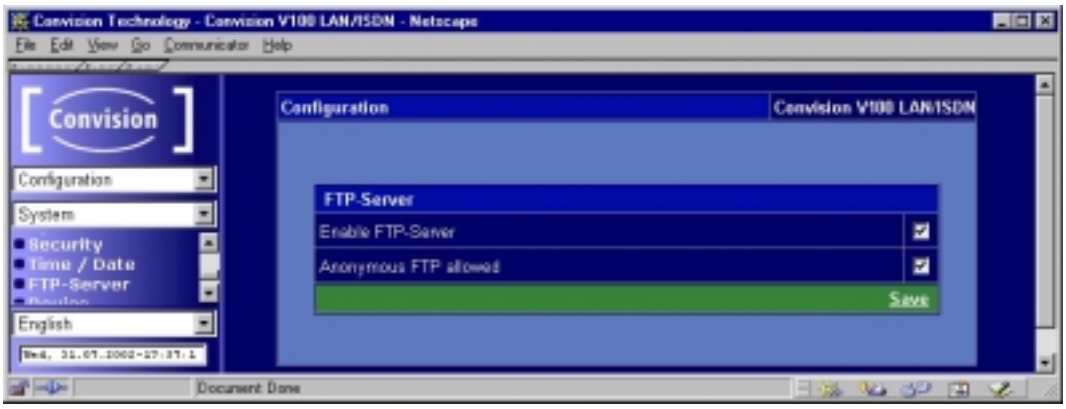


Figure 24: FTP-Server dialog box

Permitting Anonymous FTP Access

If the Convision V100/V200 is protected in that the various security levels have been activated (refer to Chapter 9.1.8), it will not be possible to access it via FTP without entering a login name and password.

You then have to use the following URL to access the Convision V100/V200:

```
ftp://login-name:password@IP-address/....
```

The login name is either "admin" or "user" and the password is the one assigned in the security settings. Once the page has been opened, the password is no longer displayed in the address line.

If "Anonymous FTP allowed" has been activated, users are able to access the images on the Convision V100/V200 with the login name "anonymous" or "ftp" and any password via an FTP program.

☞ ***Note:*** *If the FTP protocol is opened using a browser, it is not necessary to enter the user data. The login name "anonymous" is the default setting for this access.*

Downloading Images via FTP using a Browser

You can obtain an up-to-date image using the following path:

```
ftp://IP-address/cameras/camera2/fullsize.jpg
```

This command addresses camera 2. For other image sizes, you can enter "halfsize" or "hugesize" instead of "fullsize".

9.1.11 Assignment of Devices to the Serial Port

In the "Device" menu you have to enter the devices connected to the serial interfaces (Serial) of your Convision V100/V200.

1. In the table displayed, select which device is connected to COM 1 (Serial). If no devices are connected, select "No device connected!" (default).
2. If several controllable cameras are connected, specify the number of cameras (Convision V200 only).
3. If you want to operate a device not listed in the table, select "Serial Url Port". You will control the device with your own applet that you have to upload to the Convision V100/V200 (refer to Chapter 8.4 and 9.1.4).
4. Save the data.
5. You will be prompted to reboot the device. For this purpose, click the "Reboot" button.

You cannot connect two models of one device type (e.g. cameras) to the two COM ports.

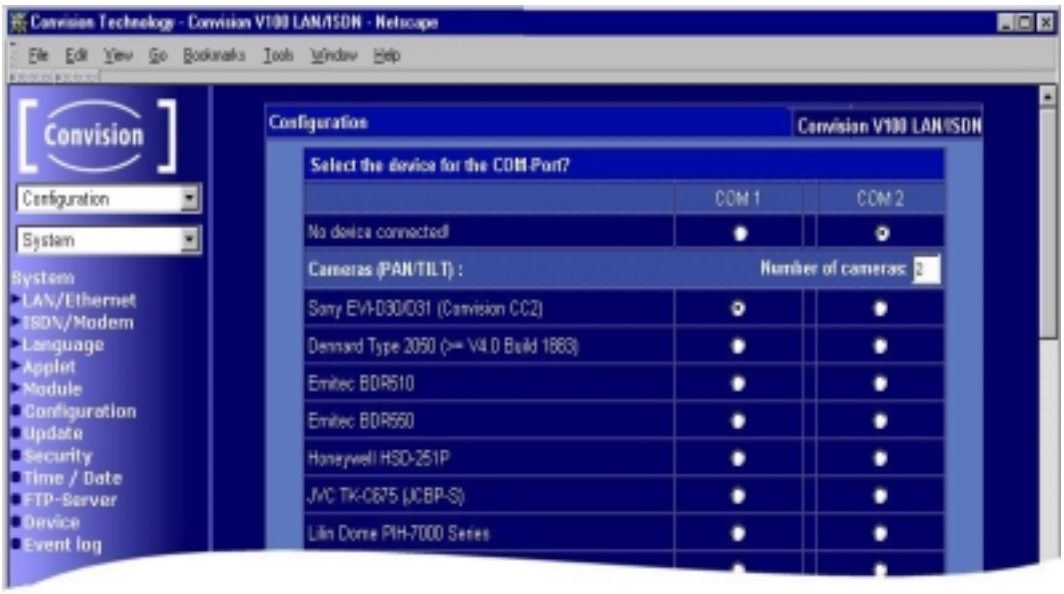


Figure 25: Assignments of the serial ports

Serial URL port

Once the serial URL port has been activated, it is possible to control devices not supported by the Convision V100/V200, e.g. other controllable cameras. In this case, all the parameters required for setting the serial connection and the actual data will be transferred.

The data that needs to be entered for controlling the device can be obtained from the device manufacturer.

When programming a website or an applet, you can integrate links or buttons that include CGI parameters in addition to the IP address of the Convision V100/V200 in the URL. These parameters are forwarded to the device to be controlled via the serial URL port. You can download a manual for programming the Convision Webserver and a sample applet at www.convision.de.

9.1.12 Event Log

The Convision V100/V200 logs all the system events (information, errors and warnings). Click on the "Event log" menu item to list all these events.
Click on "Delete events" if you want to delete the list.

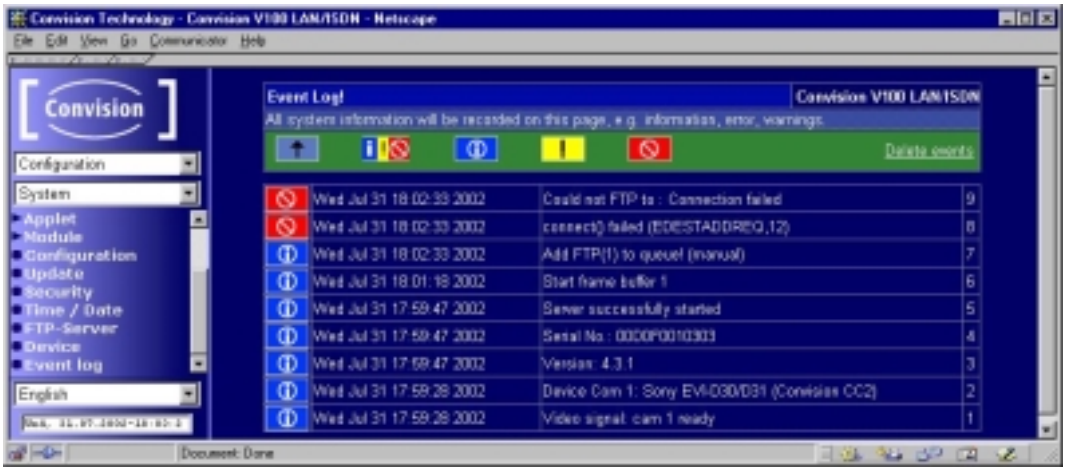

Convision Technology - Convision V100 LAN/ISDN - Netscape
File Edit View Go Communicator Help
Convision
Configuration
System
Applet
Module
Configuration
Update
Security
Time / Date
FTP-Server
Device
Event log
English
Event Log!
Convision V100 LAN/ISDN
All system information will be recorded on this page, e.g. information, error, warnings
Delete events
Wed Jul 31 18:02:33 2002 Could not FTP to : Connection failed 9
Wed Jul 31 18:02:33 2002 connect() failed (EDESTADDREQ,12) 8
Wed Jul 31 18:02:33 2002 Add FTP(1) to queue (manual) 7
Wed Jul 31 18:01:18 2002 Start frame buffer 1 6
Wed Jul 31 17:59:47 2002 Server successfully started 5
Wed Jul 31 17:59:47 2002 Serial No.: 0000P0010303 4
Wed Jul 31 17:59:47 2002 Version: 4.3.1 3
Wed Jul 31 17:59:28 2002 Device Cam 1: Sony EVI-D30/D31 (Convision CC2) 2
Wed Jul 31 17:59:28 2002 Video signal: cam 1 ready 1
Document: Done

Figure 26: Event log

You can change or filter the display by clicking on one of the buttons above the list:

Change the order of the entries

All entries visible and refresh the display

Filter: only events visible

Filter: only warnings visible

Filter: only errors visible

9.2 Camera Settings

In the "Configuration/Cameras" menu you can rename the connected cameras, i.e. assign them individual names (e.g. depending on the position of the camera). In addition, you can set the camera properties.

9.2.1 General – Settings for the Image Display

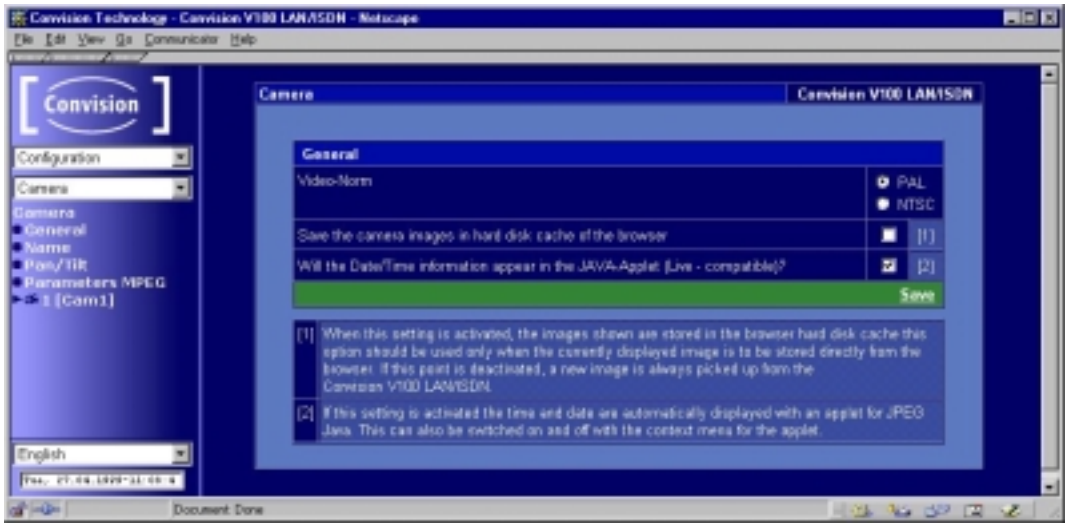

Convision Technologie - Convision V100 LAN/ISDN - Netscape
Convision
Configuration
Camera
Camera
General
Name
Pan/Tilt
Parameters MPEG
1 [Cam1]
English
Camera
Convision V100 LAN/ISDN
General
Video-Norm
PAL
NTSC
Save the camera images in hard disk cache of the browser
[1]
Will the Date/Time information appear in the JAVA-Applet (Live - compatible)?
[2]
Save
[1] When this setting is activated, the images shown are stored in the browser hard disk cache this option should be used only when the currently displayed image is to be stored directly from the browser. If this point is deactivated, a new image is always picked up from the Convision V100 LAN/ISDN.
[2] If this setting is activated the time and date are automatically displayed with an applet for JPEG Java. This can also be switched on and off with the context menu for the applet.
Document Done

Figure 27: Gerneral camera settings

Per default the video norm is PAL. If the cameras do not correspond to the selected norm the camera images will be shown distorted.

- Select „NTSC“, if your cameras correspond to the NTSC norm.
- Save the data.
- You will be prompted to reboot the device. For this purpose, click the "Reboot" button.

♦ Activate the checkbox if the camera images are to be stored in the "hard disk cache" of the browser (not in Internet Explorer).

activated: The individual image displayed in the browser window can be saved.

not activated: When saving an image, an up-to-date image from the camera is used instead of the one displayed in the browser.

♦ Activate this checkbox to enable the display of date/time in the images viewed using Live-compatible.

☞ ***Note:*** *Live-compatible also has a pop-up menu (click the right mouse button on the image) via which the date can be shown/hidden.*

9.2.2 Name – Renaming Cameras

In this menu you can assign each camera a name. It is a good idea to use the name of the location at which the respective camera is mounted. After entering the names,

click the "Save" button to save the names you assigned in the Convision V100/V200. The names assigned to the cameras will then be displayed in the camera views.

9.2.3 Pan/Tilt

This menu is displayed only if a controllable camera is connected.

In the associated dialog box you have to enter the maximum time in seconds granted to a user for controlling a camera. During this time period, any other access to this camera will be rejected. If a "0" is entered in this field, every access is permitted, i.e. if several users access a camera simultaneously, one user can change the position desired by another user.

9.2.4 MPEG Parameters

Here you can select the type of connection for your Convision V100/V200. The parameters are then set for display of the camera images (JPEG/MPEG), depending on the setting.

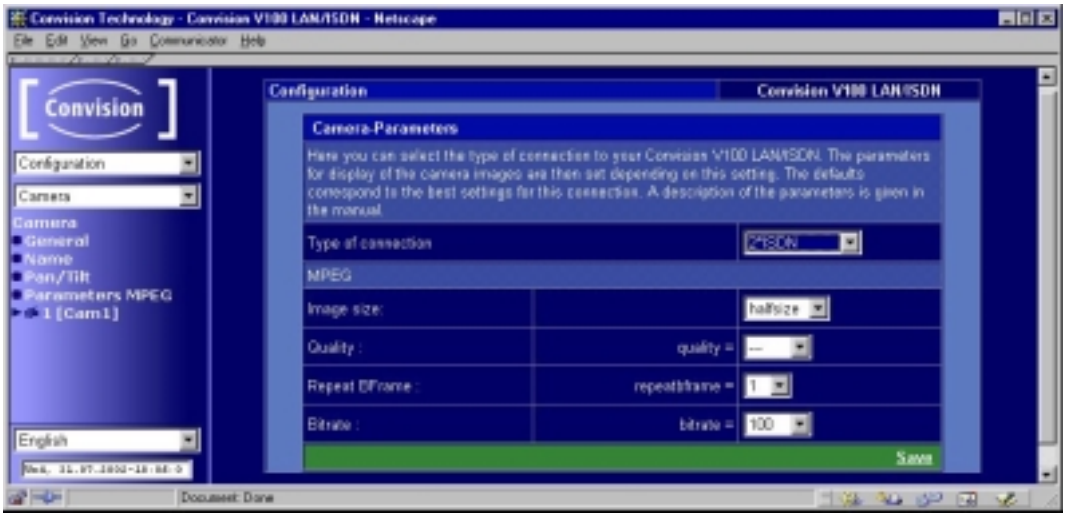


Fig. 28: Connection and parameters

- ♦ Size of image — half/fullsize (see Chapter 8.1)
- ♦ Quality — Fixed minimum quality for an image -> Transmission-rate varies
- ♦ RepeatBFrame — Instead of transferring a new image, the last image transferred is displayed again
- ♦ Bitrate — Fixed data transmission rate -> Quality of individual images varies

By repeatedly displaying images already transferred, the quantity of data to be transferred is reduced so that a higher quality is possible for the individual images.

You can only select one of the parameters either “Quality” or “Bitrate”. When the band width is small, you should specify a minimum quality with "Quality".

9.2.5 Setting the Camera Properties

1. Select a camera.

This icon is displayed if one of the inputs is not connected to a camera.

2. Select the property you want to change, i.e. either "Saturation", "Brightness", "Contrast", "Quality" or "Hue" (for NTSC cameras only).

☞ ***Note:*** *The hue (for NTSC cameras only) defines the color hue of the image and is set to 128 by default. If the image does not exhibit a natural hue with this setting, you can adapt it by slightly changing the default value.*

3. Adjust the settings according to your requirements.

- Possibility 1: the 6 number buttons above the image represent the various saturation levels. Click on one of the number buttons to select this level. If you are satisfied with the setting, click the "Save" button.

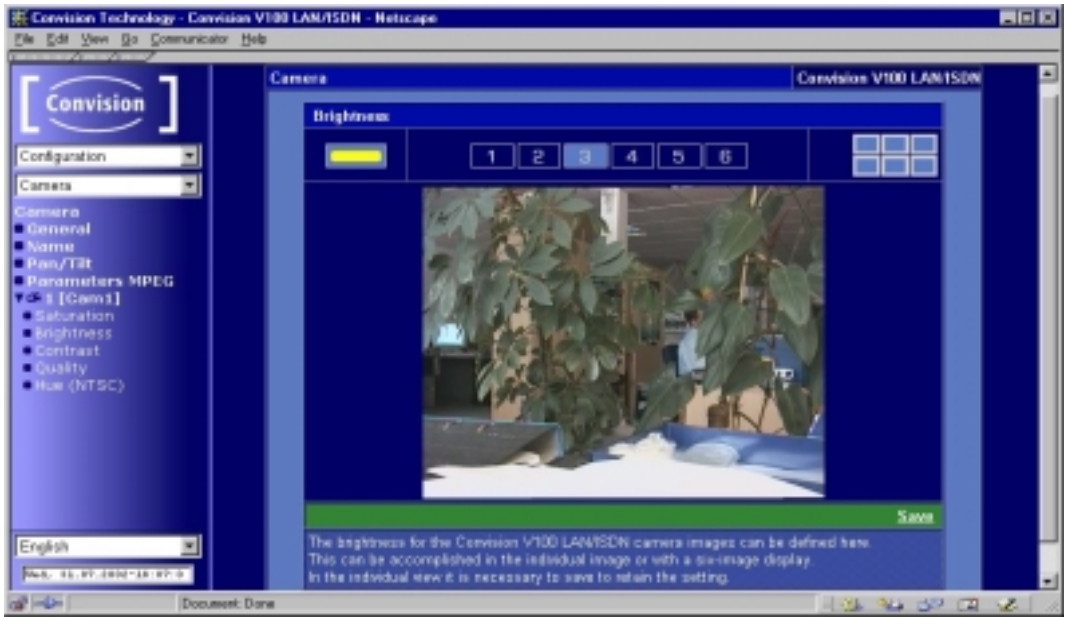


Figure 29: Setting the camera properties 1

- Possibility 2: if you click on the rectangle made up of six small rectangles in the upper right-hand corner, images representing all the six levels will be displayed. You can select the desired level by clicking on the corresponding image.

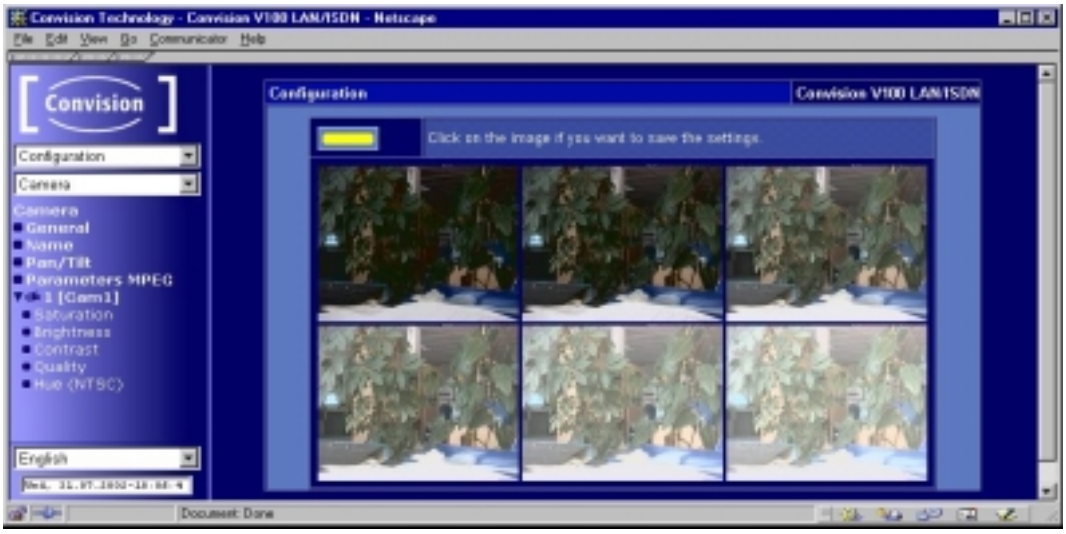


Figure 30: Setting the camera properties 2

☞ ***Note:*** *If your Convision V100/V200 is connected via ISDN it is advisable to reduce the quality and thus the data volume of the images to achieve a smooth image stream.*

9.3 Events – Actions When an Alarm Is Triggered

An event occurs either when an input is activated, time-dependent by timers you configured, when an internal event occurs or when a camera detects and reports an activity.

These menu items are used to configure the events. You then assign actions to the events that are to be triggered as a response. The following actions may be possible:

- Camera Presets (at least one controllable camera must be connected)
  Activate the preset positions that are to be taken. These positions will be taken directly one after the other in the order listed.
- Frame Buffer — Activate the checkboxes of the frame buffers that are to be filled but not sent. If you want to append frame buffers to an e-mail or VdS notification, you must not enter them here.
- Camera Tour — (at least one controllable camera must be connected) Here you can start or stop the camera tour that was previously configured under either Camera/Live Optimized or Live Compatible.
- FTP — Activate the checkboxes of the FTP uploads that are to be performed.
- eMail — Activate the checkboxes of the e-mails that are to be sent.
- eMail State — An e-mail with informations about the state of the device will be sent.
- SMS — Activate the checkboxes of the SMS that are to be sent.
- VdS 2465: — Activate the checkboxes of the VdS 2465 notifications that are to be sent.

9.3.1 Inputs

You can connect various signalling devices to the inputs of the Convision Video Webserver. Use this menu item to assign each input (Input 1 and 2) the actions that are to be performed when a message is received.

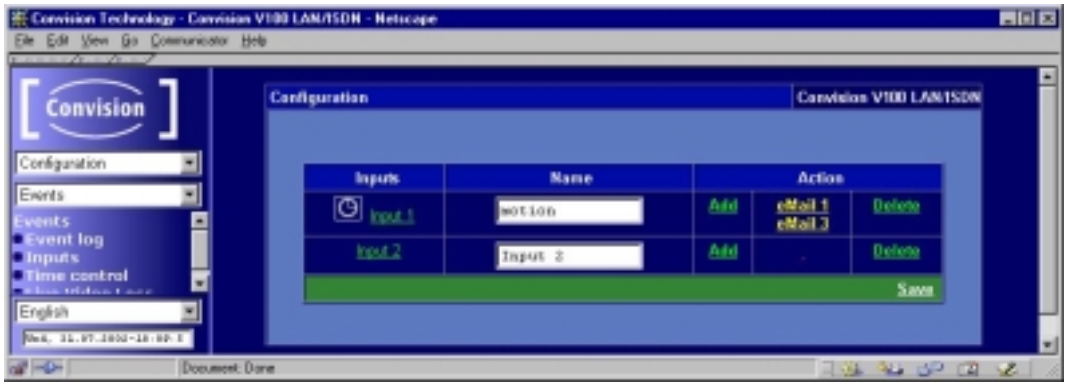


Figure 31: Configuring the alarm inputs– assigning actions

1. Select an input and enter a name for it.
2. Click on an input in the first table column. A page with a weekly schedule is displayed.

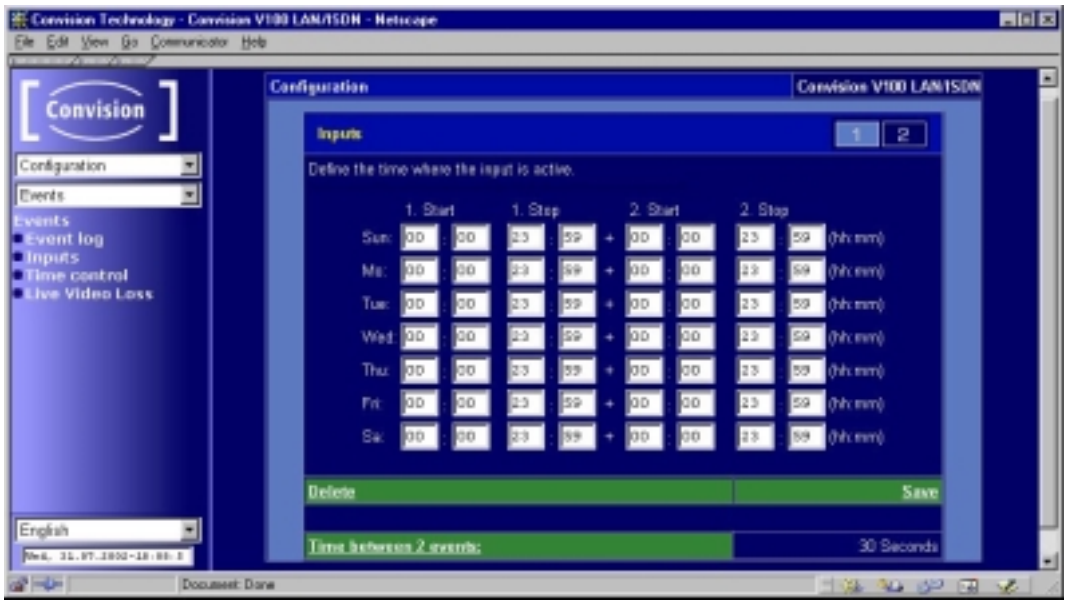


Figure 32: Configuring the inputs – weekly schedule

3. Now define one or two time periods for each day of the week on which this input is to be active. Enter start and stop times for the respective days of the week.
4. If you want to have a set period of time between two events, click on “Time between 2 Events“. A window will then pop up where you can enter a time in seconds for each input. Here you can also define a minimum time an input signal must be present, until it is interpreted as a signal. By default "0" each signal will be interpreted. Save the data.
5. Save the data in the schedule window.

6. Return to the page, on which you can select the inputs. The configured and saved inputs are now indicated by a clock symbol.
7. Click "Add" to select actions that are to be performed in the selected inputs.
8. A page will be displayed on which you can assign the event actions from various groups.
9. You can assign any number of actions. All the actions assigned will be listed in the table in the line associated with the respective input.
10. Repeat steps 1 to 9 for the other input, if desired.
11. Save the data.
12. Click "Delete" to cancel the assignment of actions.

☞ ***Note:*** *All the actions you want to trigger must first be configured. Clicking on the actions opens the associated configuration pages. Check the status on these pages to avoid assigning partitions that do not exist or messages that have not been written.*

9.3.2 Time Control – Time-Dependent Actions

In this menu you can configure up to eight different points in time (timers 1 – 8) at which the Convision V100/V200 is to perform actions. Points in time trigger periodical actions (e.g. every 10 minutes) within defined time periods (e.g. daily between 8 a.m. and 4 p.m.).

Figure 33: Configuring the points in time – assigning actions

1. Select a timer and enter a name for it.
2. Click on a timer (timers 1 to 8) in the first table column. A page with a weekly schedule is displayed.

Convision Technology - Convision V100 LAN/ISDN - Netscape
File Edit View Go Communicator Help
Convision
Configuration
Events
Events
Event log
Inputs
Time control
Live Video Loss
English
Configuration
Convision V100 LAN/ISDN
Time control
1 2 3 4 5 6 7 8
How often should the timer be activated?
30 Seconds
Define the period where the timer produce events.
1. Start 1. Stop 2. Start 2. Stop
Sun: 10 : 00 23 : 59 + 00 : 00 00 : 00 (hh:mm)
Mo: 08 : 00 12 : 59 + 16 : 00 22 : 00 (hh:mm)
Tue: 08 : 00 12 : 59 + 16 : 00 22 : 00 (hh:mm)
Wed: 08 : 00 12 : 59 + 16 : 00 22 : 00 (hh:mm)
Thu: 08 : 00 12 : 59 + 16 : 00 22 : 00 (hh:mm)
Fri: 08 : 00 12 : 59 + 16 : 00 22 : 00 (hh:mm)
Sa: 08 : 00 12 : 59 + 15 : 00 22 : 00 (hh:mm)
StartTIMER
StopTIMER
Save
Document: Done

Figure 34: Configuring the points in time – weekly schedule

3. Define how often this timer is to be activated, e.g. how often an e-mail is to be sent or an output is to be switched. You can select "Seconds", "Minutes" or "Hours".
4. Now define one or two time periods for each day of the week on which this period is to be active. Enter start and stop times for the respective days of the week.
5. Save the data.
6. Start the timer. The black indicator next to the list box in the upper right-hand corner will change its color to red.

Saving the page again after starting the timer will stop it.

7. Return to the page, on which you can select the timers.
8. Click "Add" to select actions that are to be performed at the selected points in time.
9. A page will be displayed on which you can assign the event actions from various groups.
10. You can assign any number of actions. All the actions assigned will be listed in the table in the line associated with the respective timer.
11. Repeat steps 1 to 10 for other timers, if desired.
12. Save the data.
13. Click "Delete" to cancel the assignment of actions.

☞ ***Note:*** *All the actions you want to trigger must first be configured. Clicking on the actions opens the associated configuration pages. Check the status on these pages to avoid assigning partitions that do not exist or messages that have not been written.*

9.4 Actions

The Convision V100/V200 performs actions in response to events (at an input or time-controlled – refer to Chapter 9.3).

9.4.1 Configuring the Frame Buffers

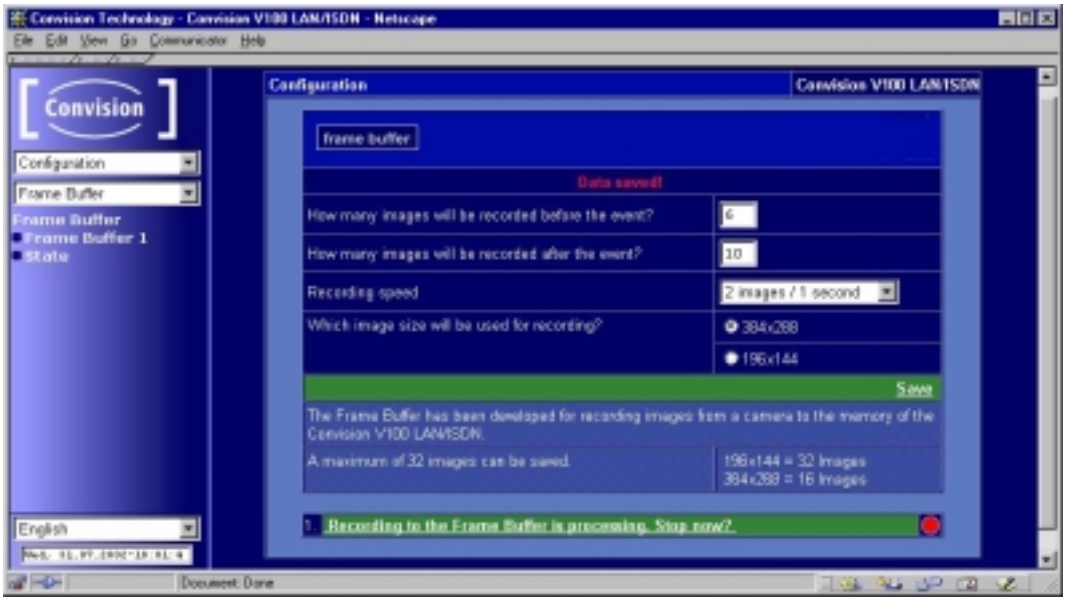

Convision Technology - Convision V100 LAN/ISDN - Netscape
File Edit View Go Communicator Help
Convision
Configuration
Frame Buffer
Frame Buffer
Frame Buffer 1
State
English
Configuration
Convision V100 LAN/ISDN
frame buffer
Data saved!
How many images will be recorded before the event?
6
How many images will be recorded after the event?
10
Recording speed
2 images / 1 second
Which image size will be used for recording?
384x288
196x144
Save
The Frame Buffer has been developed for recording images from a camera to the memory of the Convision V100 LAN/ISDN.
A maximum of 32 images can be saved.
196x144 = 32 Images
384x288 = 16 Images
1. Recording to the Frame Buffer is processing. Stop now?
Document: Done

Figure 35: Configuring the frame buffers

Frame buffers are storage spaces in the main memory of the Convision V100/V200. In these buffers you can store as many as 32 pre and post event images per camera. Each camera is assigned one frame buffer. Thus, the images from camera 1 are recorded in frame buffer 1 etc.

Once a frame buffer has been activated, it continuously stores frames. As soon as a buffer is filled, it is overwritten. If an event occurs (refer to Chapter 9.3), the preset number of post-event images are stored, then the recording procedure is aborted. Thus, the remaining storage space contains the pre-event images.

Each event may be stored in several frame buffers. Each frame buffer can store multiple events. You can attach several frame buffers of your choice to any e-mail or VdS notification.

For information on displaying frame buffers, please refer to Chapter 8.2.

1. Click on "Configuration/Frame Buffer" and select a frame buffer in the top button bar of the page displayed.
2. Specify the number of images that are to be recorded before an event.
3. Specify the number of images that are to be recorded following an event. The maximum permissible total number of pre- and post-event images is 16 or 32.

If the total number you entered exceeds 16 (384x288 pixels) or 32 (196x144 pixels), the number is automatically corrected to 16 or 32.

4. Specify the recording speed between the maximum speed (25 images per second) and 1 image every 2 seconds.
5. Select the image size. The maximum number of images stored is 16 for large images and 32 for the small images.
6. Save the data.
7. Start recording to the frame buffer by clicking the corresponding option in the table in the lower part of the page. The black indicator to the right of the option will change to red.
8. Repeat steps 1 to 7 for the other frame buffer, if desired.
9. Stop recording to the frame buffer by clicking the corresponding option in the table in the lower part of the page. The red indicator to the right of the option will change back to black.

To send a frame buffer by e-mail or VdS 2465 notification, open the "Configuration / Action / eMail or VdS2465 page, select the desired message and activate the checkbox(es) next to the desired frame buffer(s). After they are sent, frame buffers are automatically restarted. The images stored in the buffer are overwritten by a new event.

A frame buffer that was activated but not sent will not be restarted. In this case, all the pre and post event images will be displayed.

9.4.2 Transferring Data via FTP (Upload)

At predefined points in time or in response to an event, the Convision V100/V200 can transfer an image (Upload) to a web server directory via FTP.
In this case, the Convision V100/V200 is the FTP client. (For information on configuring the Convision V100/V200 as the FTP server, please refer to Chapter 9.1.10). You can transfer an up-to-date image recorded by any camera as well as data of a connected weather station.

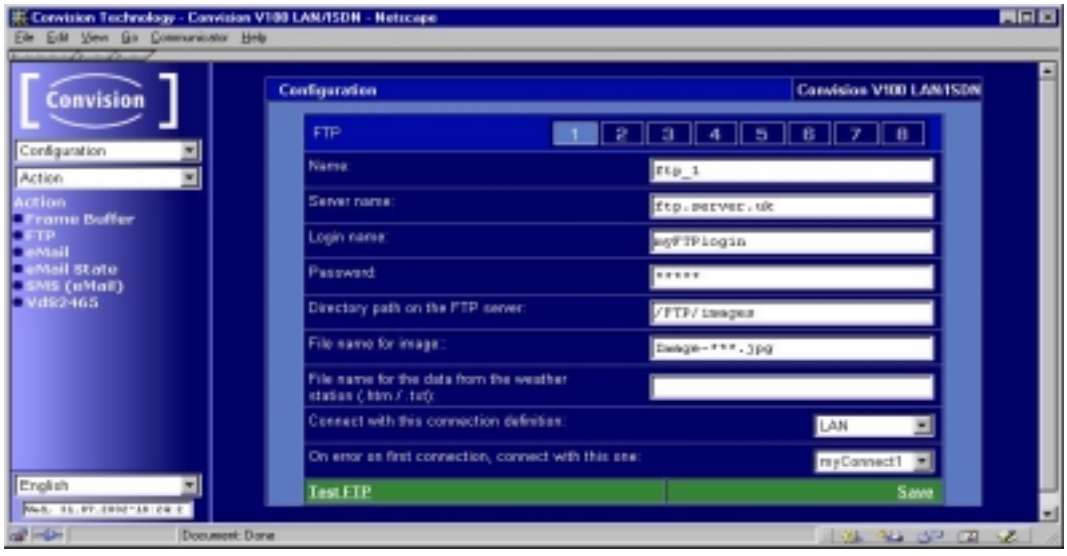


Figure 36: FTP upload

☞ ***Note**: The login information can be obtained from your administrator (LAN) or from your provider.*

1. Select one of the 8 FTP uploads in the upper button bar.
2. Enter a name.
3. Specify the name or the IP address of the server to which the images are to be transferred.
4. Enter a login name and password with access rights to this server.

☞ ***Note:** If an anonymous access to a server is permitted, "anonymous" is often used as the login name and the password is your own e-mail address.*

5. If the images are not to be saved in the default directory of the user, enter the path to the server directory in which the images are to be stored.
6. Enter a name for the image file. Images will only be transferred if a file name is entered.
7. Enter a file name for the data from the weather station. The data is transferred as an HTML file by default. If you enter ".txt" as the file name extension, the data is transferred as a text file.
8. Specify the connection via which the upload is to be performed.
9. Enter an alternative connection that is to be used if the first one fails.
10. Repeat steps 1 to 9 for other FTP uploads, if desired.
11. Save the data.

Image Names

The filenames may contain wildcards so that the images can be saved on a server using consecutive numbers. Using the name "image*.jpg" will copy the images "image0.jpg" to "image9.jpg" to the server. An additional "*" needs to be entered for each digit required, i.e. the name "image**.jpg" will copy the images "image00.jpg" to "image99.jp"" to the server. The image counter is reset to zero once you save the FTP message.
The following variables can be used in naming the image files:

- %DATE% current date
- %YEAR% current year
- %MONTH% current month
- %DAY% current day
- %TIME% current time
- %IP% IP address of the IP video server
- %SERIAL% serial number of the IP video server

The variables will be replaced by their values when saving the pictures on an ftp server. For example:

Image-%DATE%-%IP%_***.jpg
will become Image-14_05_2002-192.168.0.123_001.jpg

9.4.3 Notification via E-Mail

At predefined points in time or in response to an event, the Convision V100/V200 can send an e-mail to as many as 10 addresses.
You can attach an up-to-date image recorded from any camera, frame buffers as well as data from a connected weather station to the e-mail.

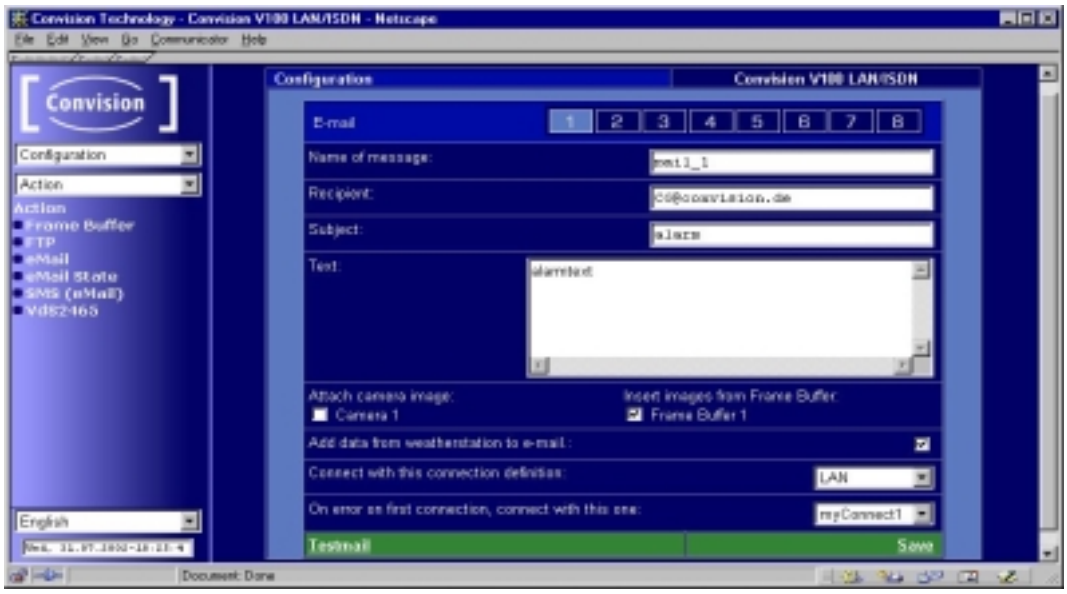


Figure 37: Configuring e-mail notification

1. Select one of the 8 messages in the top button bar.
2. Enter a name.
3. Enter the e-mail address of the recipient in the "Recipient" field. If the message is to be sent to multiple recipients (max.10), separate the e-mail addresses using a semicolon.
4. Enter the reference in the "Subject" field (e.g. alarm).
5. Enter the message in the ”Text” box (e.g. burglary at xxx., address: xxxx etc.).
6. You can attach images recorded by each camera to the e-mail. For this purpose, activate the checkbox next to the desired cameras.
7. You can attach images stored in the frame buffers to the e-mail. For this purpose, activate the checkbox next to the desired frame buffers.

If you append images from several frame buffers, the e-mail may become very large. In this case, it may not reach the recipient at all.

8. To attach data from a connected weather station, activate the corresponding check box.
9. Specify the connection that is to be used to send this e-mail.
10. Enter an alternative connection that is to be used if the first one fails.
11. Repeat steps 1 to 10 for other e-mails, if desired.
12. Save the data.

9.4.4 E-Mail State (eMail State)

Basic status reports (cameras and event log) for the IP video server can be sent by e-mail as an action following an event or time-controlled.

9.4.5 Notification via SMS (Short Message Service)

At predefined points in time or in response to an event, the Convision V100/V200 can send an SMS to as many as 10 addresses. An SMS can have a maximum length of 160 characters. You cannot attach any other data.

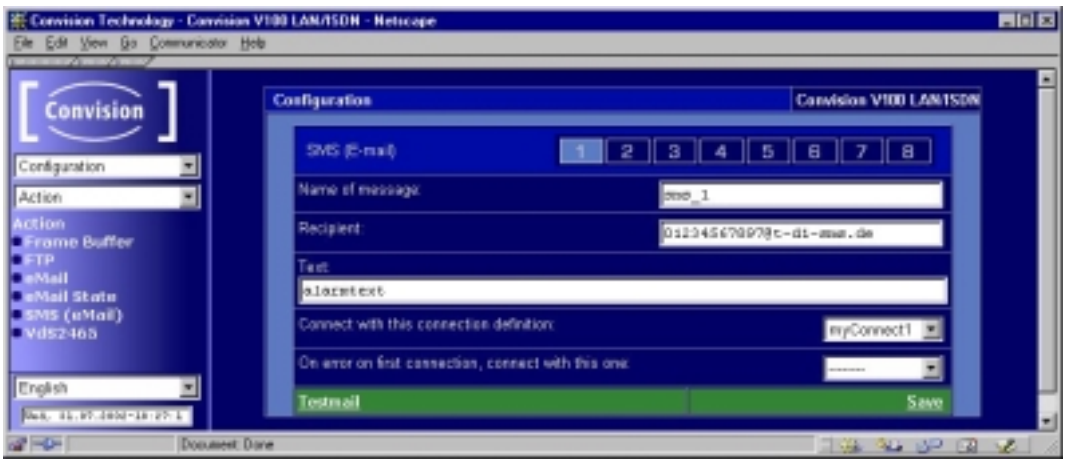


Figure 38: Configuring SMS

1. Select one of the 8 messages in the top button bar.
2. Enter a name.
3. Enter the e-mail address of the mobile telephone in the "Recipient" field. If the message is to be sent to multiple recipients (max.10), separate the e-mail addresses using a semicolon.

☞ ***Note:*** *Since the messages can be sent via e-mail to a mobile telephone, ask your mobile network operator for the e-mail address of the mobile telephone (e.g. <phone number> @d2-message.de, <phone number>@t-d1-sms.de, <phone number>@smsmail.eplus.de).*

4. Enter the message text in the "Text" field (max. 160 characters).
5. Specify the connection that is to be used to send the SMS.
6. Enter an alternative connection that is to be used if the first one fails.
7. Repeat steps 1 to 6 for other SMS, if desired.
8. Save the data.

SMS messages are sent to the mobile telephone via the e-mail function of the provider, which means the e-mail/SMS function must be enabled for this telephone.

9.4.6 VdS 2465

In response to an event, the Convision V100/V200 can send a VdS notification to an alarm center. You can attach several frame buffers to the notification. (For information on configuring the connection, refer to Chapter 9.1.2, VdS 2465).

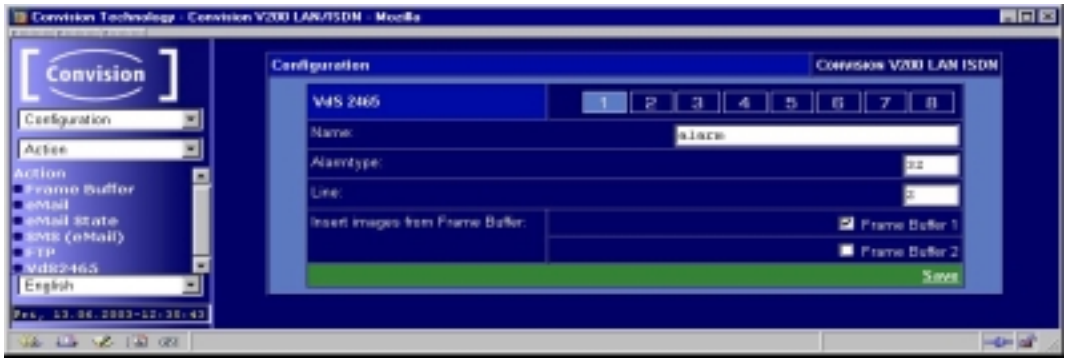


Figure 39: Configuring VdS2465

1. Select one of the 8 messages in the top button bar.
2. Enter a name.
3. Enter an alarm type. Ask your alarm center for a list of alarm types you can use.
4. You can attach images stored in the frame buffers to the message. For this purpose, activate the checkbox next to the desired frame buffers.
5. Repeat steps 1 to 4 for other messages, if desired.
6. Save the data.

9.4.7 Further action with no configuration page

Camera Tour

Here you can start or stop the camera tour that was previously configured under either Camera/Live Optimized or Live Compatible (refer to Chapter 8.1.1). This can be started or stopped or activated by an event, as long as the input is activated (start/stop).

10 General Descriptions

10.1 Using the Convision V100/V200 as a Video Server

If the Convision V100/V200 is integrated in your LAN with a fixed IP address, it can be accessed as a web server directly from the Internet. However, do bear in mind that the capacity of the video server is limited – with a large number of users, a proxy server solution is strongly recommended (CGI script and daemon on a powerful web server).
A great advantage of this connection option is the high image refresh rates.

10.2 Live optimized and Live compatible

There are three options for displaying frame sequences (Motion-JPEG) in your browser:

Live optimized - Server-Push is a software program executed in the browser for continuously playing back images without the connection between the server and browser being interrupted. It is available in Netscape Navigator only.
Live optimized - Convision Technology developed an ActiveX plugin especially for displaying frame sequences in Internet Explorer. When starting the first frame sequence using this program, it will be installed as a plugin for the Internet Explorer on your computer.
Live compatible - A Java applet also developed by Convision Technology GmbH is available for this and all the other browsers.

10.3 FTP

For transmitting images via FTP (File Transfer Protocol), the Convision V100/V200 can be used either as an FTP server or as an FTP client. It is always the client that takes the initiative for transferring data.

As a server, the Convision responds to the request of a client, e.g. the browser, and sends the requested images (FTP download). As a client, the Convision V100/V200 dials up a server and transmits one or more pre-configured images. An FTP upload is performed.

10.4 Password Encryption

Some providers use the encrypted submission of the registered password as an additional security feature. If you have defined a password for incoming or outgoing connections on the Convision V100/V200, you can activate the password encryption function.
If the provider does not accept the encrypted transfer of the password, the connection will still be established via the unencrypted transfer of the password.

If you did not define a password, this option will be ignored.
Ask your provider whether password encryption is supported or not.

10.5 Channel Bundling

A basic ISDN access provides two transmission channels with a bandwidth of 64 Kbit each for language or other user data. These channels are referred to as B-channels. For a standard ISDN connection, only one of the two available B channels is used. When both the B-channels are used for data transfer, this is referred to as "channel bundling". This means, twice the data volume can be transferred at the same time. The charges accrue per channel, which means that they will be doubled during channel bundling.

Channel bundling can be activated individually for incoming and outgoing connections to the Convision V100/V200.

Not all providers support this option. If you activated channel bundling but your provider does not support this option, a single channel connection will be established. Ask your provider whether channel bundling is supported or not.

☞ ***Note****: If your provider does support channel bundling but it is not possible to bundle the two lines, the connection will be terminated with an error message in the event log (refer to Chapter 9.1.12).*

10.6 SMTP or Mail Server

An SMTP (Simple Mail Transfer Protocol) server forwards outgoing e-mail messages to the recipient. The address of the SMTP server can be obtained from the system administrator for a LAN connection and from your telecommunications provider for an ISDN connection.
To be able to access the SMTP server, the e-mail address of the sending Convision V100/V200 must be registered with the provider.

SMTP Authentication – SMTP-after-POP

Some e-mail providers require authentication to prevent anyone with an unauthorised or fake e-mail address from using the SMTP server. One authentication method is SMTP Authentication. You need to enter a user name and password for this.

Another authentication is a registration via POP 3 (Post Office Protocol – Protocol used to access a server which stores e-mails for other computers).
If the provider requires this method for authentication, just enter the user names and password in the same way you have to to receive your e-mail.

10.7 Control via CGI Parameters

CGI (Common Gateway Interface) is a way of providing programs that can be opened by HTML files. The program and the parameters to be used to open the program is placed in the URL following the IP address. An example is given below:

http://IP address/path/CGI program?Parameter1=value1&Param2=value2&...

This program with its parameters can be opened using a button, a link, a form or the address line of a web page. CGI programs are used by the ConvisionCall service, for example, or for controlling non-supported devices via the serial URL port.

10.8 The TCP/IP Protocol Group

TCP/IP is a group of protocols with the TCP (Transmission Control Protocol) and IP (Internet Protocol) being the group's most important components. They form the widest spread solution in the area of internetworking and have established a de facto market standard.

To integrate a device into your local area network properly, you have to assign an IP address to the device. This section will describe the structure of IP addresses and network masks so that you can set them correctly. You will also find information on the services and protocols of TCP/IP.

The IP Address

Internet addresses are used to identify computers in TCP/IP networks. They form an integral part of the Internet Protocol and are therefore referred to as IP addresses.

The Structure of an IP Address

The IP address is a binary code with a length of 4 bytes. To make this structure easier to understand, the individual bytes are separated by full stops and written as decimal figures. Take a look at the following example:

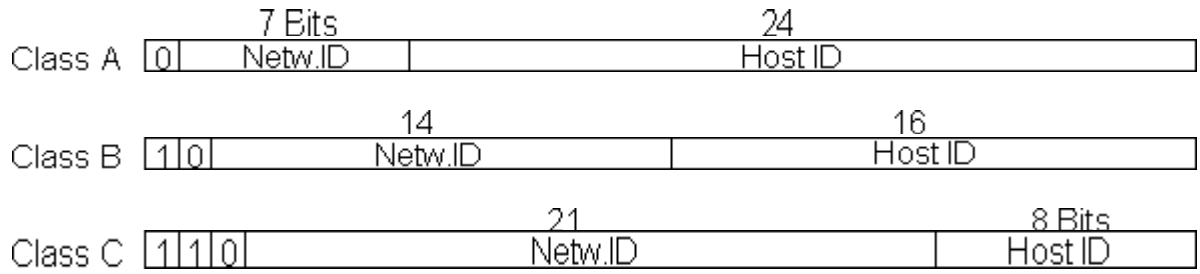
Assuming a computer has the IP address: 11000000 10101000 01100100 00000010

In decimal notation this address is: 192.168.100.2

Every IP address is made up of a network identification (network ID) and a host identification (host ID). This structure is similar to that of a telephone number, which is also divided into a local area code and a subscriber ID. As opposed to a telephone number, the length of an IP address never changes.

Depending on the length of the host ID and network ID, the IP addresses are grouped into network classes. The A, B and C network classes primarily used are presented in the following graphics. The D and E classes are reserved for special purposes.

As shown in the graphics, the longer the host ID, the shorter the network ID. This means, the possible number of network IDs per network class and the possible number of host IDs per network vary.



For example, network class B contains 16.384 subnets with 65.534 hosts each, while network class C contains 2.097.154 subnets with 254 hosts each.

The Domain Name Service (DNS)

Although the decimal notation of the IP address is already simplified, it remains a rather difficult-to-use method of addressing a computer in the Internet.

This is why the domain name service (DNS) was developed. The domain name service enables the assignment of a name to each computer in a TCP/IP network. This name has nothing to do with the IP address of the computer but it is mapped to this IP address using specific mechanisms. This means that the name can be used to determine the IP address. In addition, it is possible to structure a TCP/IP network hierarchically and to group the computers according to geographic or thematic criteria. These groupings are referred to as domains.

Example:

Assuming a computer has the IP address 192.168.101.16:

It has the assigned name "Computer.organization.de". This is a name for any computer in any company located in Germany.

The fundamental component of the DNS is a hierarchically organized database that is managed by a suitable server, referred to as the DNS server. These DNS servers can be either public or part of a private network.

If a DNS server is not available in your LAN, use a simpler form of name assignment such as a text file that maps the names of the individual computers to the associated IP addresses.

☞ ***Note:*** *This file named Hosts is stored in the Windows directory (Windows 98), in the WINNT directory (Windows NT) or as /etc/hosts under Unix.*

Private IP Space

The IP address is an integral part of the Internet Protocol, which forms the basis for communication in the Internet and is also often used in a LAN. The network mask is used to subdivide larger networks. The IP address must be unique across the entire network, in which it is registered.

If you are not planning a permanent internet access of your own or are not using a respective filtering system, the IP address of the computer cannot be registered in the public internet. In this case you should select an IP address from the "private IP space" .

These are IP addresses designed for local networks that will not be forwarded in the Internet. Computers with addresses of this kind are not visible outside the local network. For class C networks there are 256 address spaces, namely from 192.168.0.x to 192.168.255.x.

The only issue to be considered when selecting addresses from this space is the allocation of IP numbers from the same address space for a class C network. All computers must have addresses within the range of 192.168.12.1 to 192 168.12.254, for example. The numbers 0 and 255 are reserved for special functions and must not be assigned.

Dynamic IP Addresses

Since the length of the IP address has been restricted to 32 bits, the number of IP addresses available worldwide is rather limited. At the same time, however, the worldwide demand for IP addresses is increasing, e.g. due to the increased interest in the World Wide Web.

The dynamic IP addresses provide a solution to this problem. In this case, IP addresses are assigned for temporary use from an IP address pool, including all the information on gateways, network masks, DNS servers and the like. After a specific time, the IP address returns to the pool and is available again.

This system is used when connecting to Internet providers, for example. The IP addresses assigned within your LAN are not made public in this process.

Static IP Addresses

If your IP address is to be visible in the public Internet, e.g. if you want to maintain your own web server, this address must be unique worldwide. To obtain an IP address of this type, please contact your Internet service provider or the German Network Information Center (DE-NIC).

The Network Mask

The network mask is used to determine which part of the IP address describes the network and which part identifies the computer in the network. Example:

Assuming the IP address of a computer is	192.168.100.3
And assuming the net mask is	255.255.255.0.
Then the network identification is	192.168.100.

The fourth number identifies the computer.

☞ ***Note:*** *Incorrectly defined IP addresses and network masks very often cause errors in TCP/IP networks. For this reason, if you are not absolutely sure or if problems come up, please contact an experienced network administrator.*

11 Technical Data

Camera inputs	Convision V100: 1 FBAS input, PAL, NTSC, BNC connector Convision V200: 2 FBAS inputs, PAL, NTSC, BNC connector Adapter Cinch to BNC supplied
Interfaces	RS232 with max. 115 KBit/s, mini DIN-8 plug, adapter to D-Sub9 supplied
Detector inputs	2 NC inputs for motion detectors etc.
Transmission	Convision V100/V200 LAN/ISDN: ISDN, LAN 10/100 Base T, Modem Convision V100/V200 LAN: LAN 10/100 Base T, Modem
Dome support	e.g. Sony EVI-D30/D31, Sensormatic SpeedDome, Philips G3 AutoDome, Ernitec BDR510/550, Dennard 2050 (>= V4.0 Build 1883), JVC TK-C675B, Lilin PIH-7000 Series, Panasonic WV-CS850 Series, SAE Dragon, Canon VC-C4/C4R, VCL Microspere Orbiter Gold, Vicon Surveyor 99 and 2000-16/22, Pelco Spectra II (D-Protocol)
Alarm center support	The VdS 2465 protocol is supported.
Compression	MPEG stream/JPEG, up to 25 frames/second (PAL), up to 30 frames/second (NTSC) Approx. 3-50 KB/frame
Frame size	Resolution of 176x144, 352x288, 704x575 pixels
Pre / post alarm frames	32 frames with a resolution of 176 x 144 pixels or 16 frames with a resolution of 352x288 pixels
Protocols	TCP/IP, PPP, HTTP Server, FTP, SMTP Client
Configuration	Completely with Web browser via HTML
Internet Browser	e.g. Netscape Navigator 4.x or higher, Microsoft Internet Explorer 5.5 or higher HTTP 1.0 and HTML 3.2, Java Script 1.2, Java 1.4
Power supply	External 12V/1.5 A power pack 100-240 V (GS, CE, UL, CSA)
Power consumption	5 W
Dimensions	Width: 140 mm, height: 28 mm, depth: 190 mm
Weight	740 g
Temperature range	0 to +50°C (+32 °F to +122 °F)
Approvals	CE0682, EN50081, EN50082, EN50022

Appendix A FAQ – Frequently Asked Questions / Troubleshooting

Connection	
Why can't I establish a connection to the Convision V100/V200 via ISDN?	Is the Convision V100/V200 switched on? Did you enter the correct MSN for the Convision V100/V200? Is the line busy? When connecting via a telephone system, do you have to enter "0" or "00" as a prefix? Check the settings for the proxy server in your Internet browser. It should be set either to direct access to the Internet, or - with manual configuration - the IP address of the Convision V100/V200 should be entered as an exception. Tip: Are the Convision V100/V200 and the computer connected to the same S_0 bus? Try a different S_0 bus. Windows NT only: Check whether RAS and dial-up networking are correctly installed.
Why can't I establish a connection to the Convision V100/V200 via a LAN?	Is the Convision V100/V200 switched on? Is the IP address of the Convision V100/V200 correct? If not, assign one using the Convision IPSetup tool. Is TCP/IP installed and configured on the computer? Check the settings for the proxy server in your Internet browser. It should be set either to direct access to the Internet, or - with manual configuration - the IP address of the Convision V100/V200 should be entered as an exception.
Does the Convision V100/V200 affect the performance of the LAN?	If the Convision V100/V200 is accessed frequently, it may affect the transfer rate in the network.

To what extent does the Convision V100/V200 affect the performance of the LAN?	Up to 450 KB per second during image streaming. If the load is too high, reduce the refresh rate!
Why can't I establish a connection to the Convision V100/V200 via a modem?	Is the Convision V100/V200 switched on? Is the modem switched on? Is the modem connected to the serial port of the Convision V100/V200? Has "Modem" been selected in the System / ISDN / General" menu? Has "Analog Modem" been set in the interface configuration and was the Convision V100/V200 rebooted? Did you enter the correct settings for your modem? Only modem to modem connections are possible. Connections to a modem via ISDN is not possible.
How can I connect the Convision V100/V200 directly to a computer?	Computer with network card: Connect the computer and the Convision V100/V200 via a twisted-pair cable (cross-connect cable). Windows-based PC via PC direct connection using a null modem cable.
Why can't I establish a connection to the provider although I entered the correct PPP identification and password?	Have you activated password encryption? Deactivate this option and repeat the connection attempt. Some providers appear to accept encoding, but then the submission of the password fails.

Messages

Which Internet provider can I use?	You can use any Internet provider with e-mail access who supports PPP dial-up with PAP or CHAP authentication.
What is the maximum permissible length of an e-mail?	An e-mail message may consist of 256 characters plus images.
To how many recipients can I send an e-mail?	You can enter as many as 10 recipients separated by a semicolon.

E-mails are not being sent.	Incorrect Internet provider data or default router not entered. Entry of e-mail sender address missing or incorrect. Entry of SMTP server missing or incorrect. Entry of DNS server missing or incorrect. The telephone system may not permit calls to numbers starting with 010… In this case, use a different Internet-by-call provider or Internet provider (e.g. T-Online via 0191011...) Tip: Try entering the IP address of the SMTP server instead of the name.
How many characters can be sent via SMS?	The maximum permissible length of an SMS is 160 characters. You cannot attach any images.
Is a dialling pause possible for telephone systems?	No.

Camera	
A camera image is not displayed although a camera is connected.	The camera is not supplied with voltage. The camera is not switched on. The video cable is not connected or defective.
The control panel of a controllable camera is not displayed on the user interface (browser window).	The camera was not correctly configured under System/Device. The control cable is not connected or defective. The Convision V100/V200 must be rebooted after a camera has been connected.
What types of cameras can be connected to the Convision V100/V200?	Any camera with a PAL or NTSC output. It is connected to the Convision V100/V200 via a BNC connector (male).
What kind of video cable do I need to connect the cameras?	You should use a high-quality coaxial cable with a low attenuation factor (75 Ω).
What is the maximum permissible length of a video cable?	If you supply the camera with voltage via the video cable, it should not exceed 50 m. If the video cable is longer, the camera must be supplied with power via a separate cable. If the cable is longer than 100 m, the quality of the video signal may deteriorate. The maximum length supplied by us is 300 m.

How is a controllable camera connected?	The control unit is connected via an 8-pin mini DIN to 9-pin sub-D coupling. The image is transferred via a cinch cable with BNC adapter. The power supply is autonomous.
How many controllable cameras can I connect?	You can connect 2 controllable cameras to the Convision V200. The cameras are connected in series; only the first one is directly connected to the Convision V100/V200.

Security

How can I protect the Convision V100/V200 against unauthorized access?	The Convision V100/V200 features several safety levels: 1. The entire Convision V100/V200 can be secured. The configuration can be secured. 3. The recording sector can be secured. Apart from these three levels, there is a password protection for PPP access via ISDN. Similar to other network topologies, the operator is responsible for assigning passwords.
Is external access to the LAN possible via the Convision V100/V200 when using ISDN?	No, the Convision V100/V200 is not a router.
What happens to the Convision V100/V200 in the event of a power failure?	Without an emergency power supply, the Convision V100/V200 will be switched off. The configuration will not be lost as it is saved in a flash ROM. After the power failure, the Convision V100/V200 will reboot and start with the preset tasks.
Are the former configuration settings retained after an update?	No, if fundamental changes have been made to an HTML page, the original settings will not be saved.
Are the images on the hard disk retained after an update?	No, if fundamental changes have been made in the hard disk section, the hard disk will be reformated when the device is updated.
When I perform an update, will the ISDN connection be maintained?	No, you have to re-establish the connection.
What is the login name for the administrator?	The login name for the administrator is "admin".

What is the login name for the user?	The login name for the user is "user".
What is the login name for the recording sector?	The login name for the recording sector is "record".
The Convision V100/V200 does not permit any access after the access protection feature has been enabled.	Try using the login name "admin" and a blank password field. Try using the login name "admin" and the password you assigned. The last possibility is to delete the configuration.

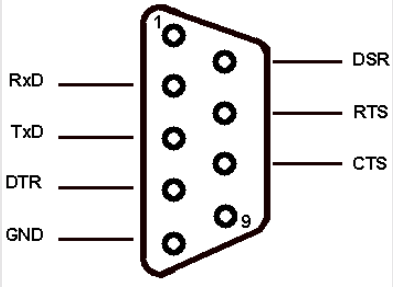
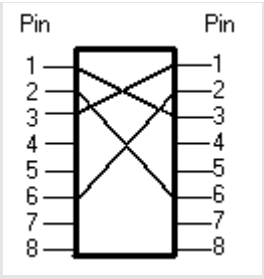
LED indicators

Why does the Online LED flash?	The Convision V100/V200 has not yet been configured.
Why doesn't the Camera LED light up although a camera is connected?	The LED is updated only when you reboot the Convision V100/V200 or when a camera image is displayed.

Browser

In Server Push mode, the Netscape Browser gets stuck after some time.	Due to an error in Netscape Navigator, the Server Push connection breaks down after a while. To avoid this, use the Java applet for image streams, which will automatically re-establish a connection after a breakdown.
When using the HTML user interface, not all the functions are available?	Javascript, Java and Cookies must be enabled in your browser.
What do the terms Server Push and Java applet mean?	Server Push is a function in Netscape Navigator for displaying JPEG images as image streams. For other browsers, the Java applet must be used.
Former or incorrect parameters are displayed despite correct setting of the configuration parameters.	Make sure that the browser does not load documents from the cache (refer to document “Convision System Configuration“).
Images are not displayed in ActiveX mode.	The Convision ActiveX plugin must be loaded. The security settings of the browser must permit loading and executing ActiveX plugins. The processor of your computer must have an MMX extension.

General

In what temperature range does the Convision V100/V200 operate?	The Convision V100/V200 operates in a temperature range of from 0 °C to 50 °C (+32 °F to +122 °F)
Can I perform a remote reset of the Convision V100/V200 ?	Yes, e.g. select Configuration / System / FTP and save the settings without any changes. Then click the "Reboot" button.
How many users can access the Convision V100/V200 simultaneously via the LAN?	Depending on the task, up to 20 users.
How many users can access the Convision V100/V200 simultaneously via ISDN?	Two simultaneous connections can be set up, if channel bundling (also with ConvisionCall) is enabled, only one. Via ConvisionCall without channel bundling the number is theoretically higher but due to the small bandwidth of the line the transmission rate is very low.
What is the pin assignment of the D-Sub9 connector (female) of the serial interface?	 Pins 1 and 9 are not assigned.
What is the pin assignment of a cross-connect cable?	

Appendix B Declaration of Conformity

CE

KONFORMITÄTSERKLÄRUNG
DECLARATION OF CONFORMITY

Geräteart: Micro Web Server
Type of equipment:

Produkt / Product : **Convision V100/V200 Series**

Das bezeichnete Produkt stimmt mit den Vorschriften folgender EU- Richtlinie(n) überein:

The aforementioned product complies with the following European Council directive(s):

93/97/EWG	EG EMV- Richtlinie / EC EMC directive
1999/5/EG	EG Telekommunikationsendeinrichtungen - Richtlinie EC Telecommunications terminal equipment directive

Zur vollständigen Einhaltung der EMV- Richtlinie wurden folgende Normen herangezogen:

To fully comply with the EMC directive, the following standards have been used:

EN 55022 Class B	: 1987
EN 50081-1	: 1995
EN 50082-2	: 1995

Dieser Erklärung liegt zugrunde: Prüfungen im EMV- Prüflabor

This certification is based on: Tests in EMI test laboratory

Aussteller / Holder of certificate :

Convision Technology GmbH
Zuckerbergweg 22

38124 Braunschweig
Germany

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